THE ARCHITECT & BUILDING NEWS

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- SHOPS AND HOUSES, SEDGLEY
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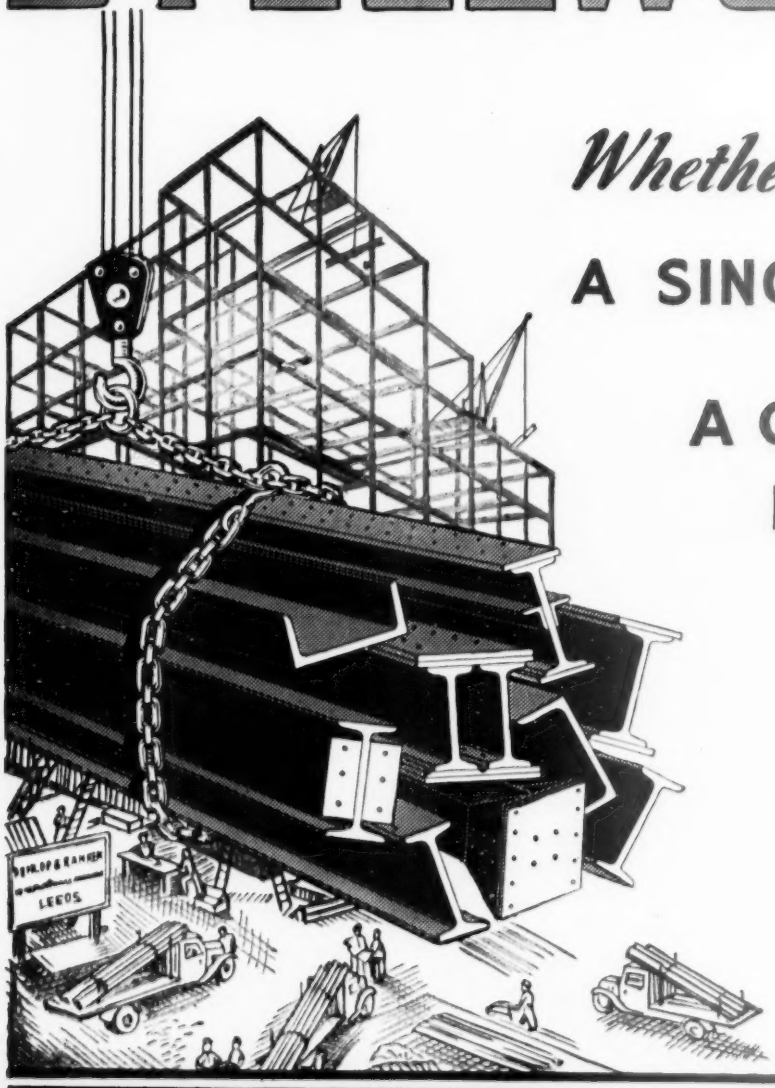
17 DECEMBER 1953 · VOL. 204 · NO. 25 · ONE SHILLING WEEKLY

STEELWORK



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LEEDS

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*Lemuel Putt**

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If you are putting toilet compartments into schools or hospitals, factories or offices we should be glad to tell you about the new Roften lavatory units. Please write or telephone.

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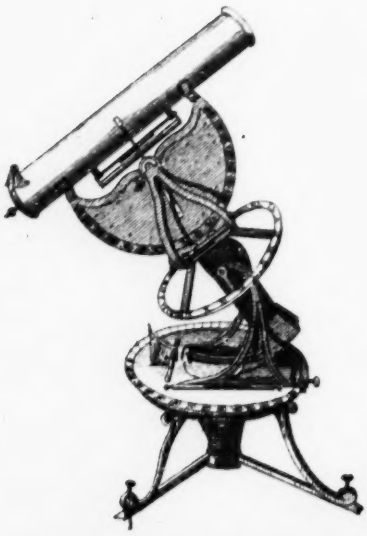
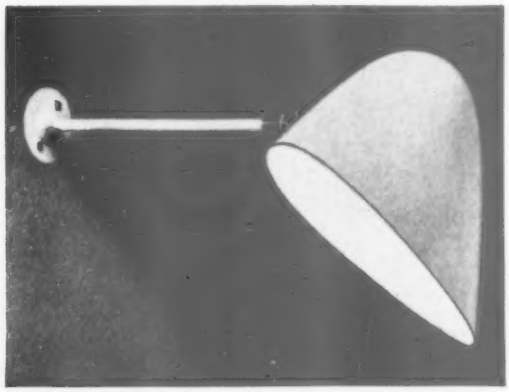
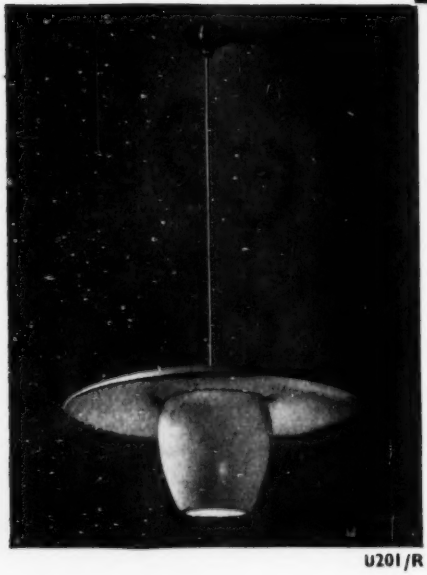


WORKMANSHIP



FV4/R

TROUGHTON & YOUNG



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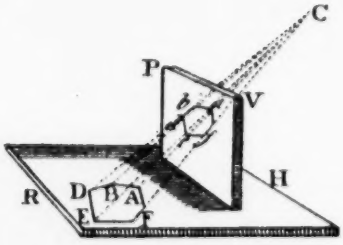
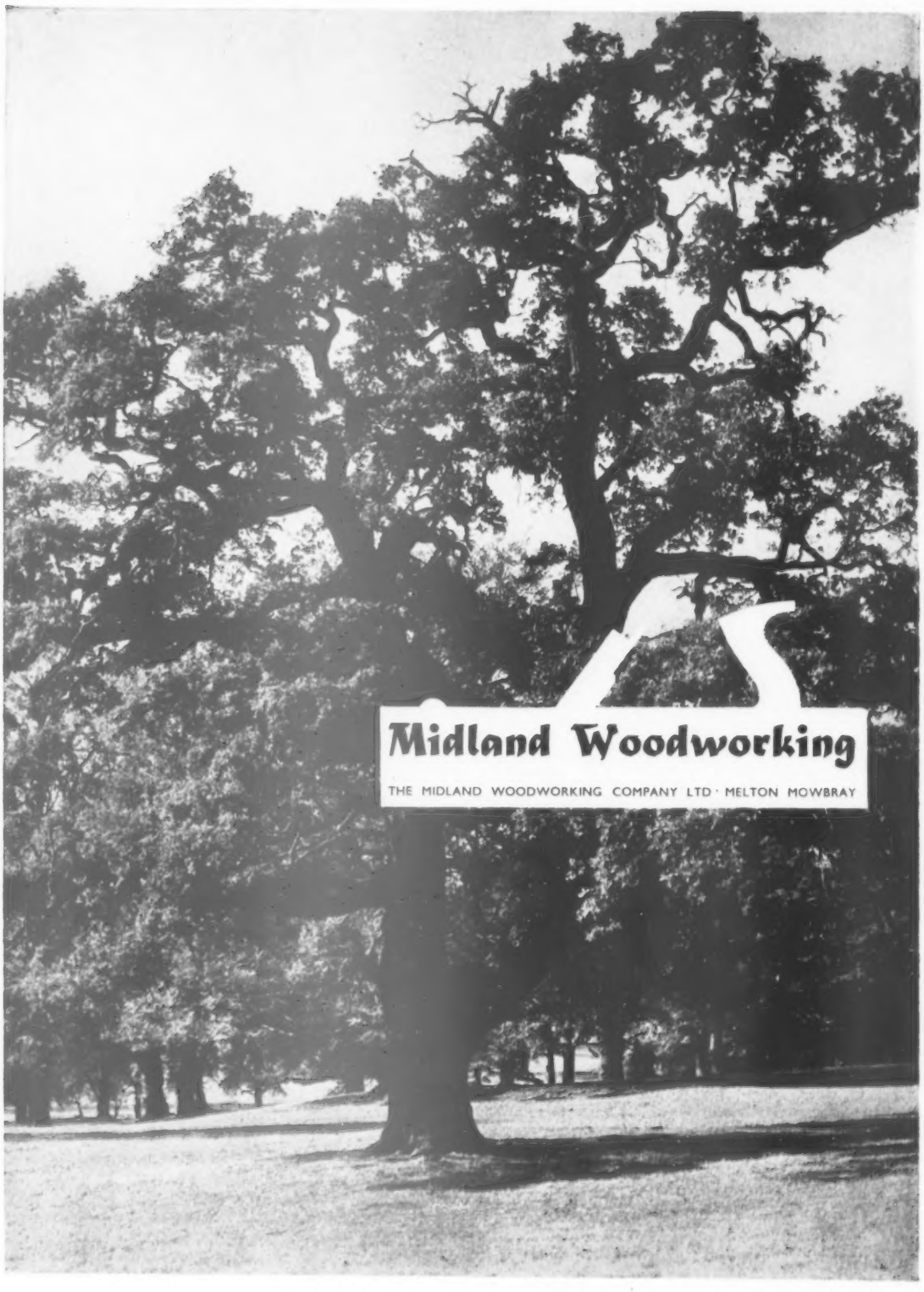


UNDERSTANDING

P1200



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FOR EFFICIENCY AND RELIABILITY

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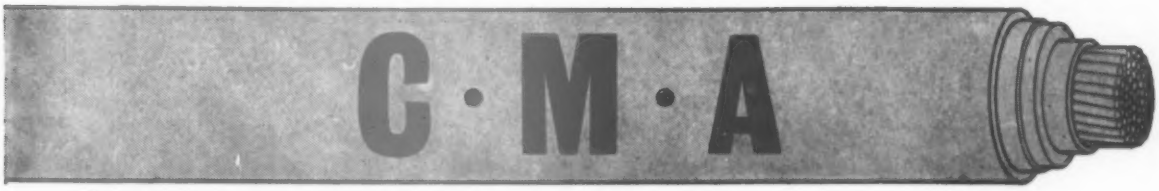

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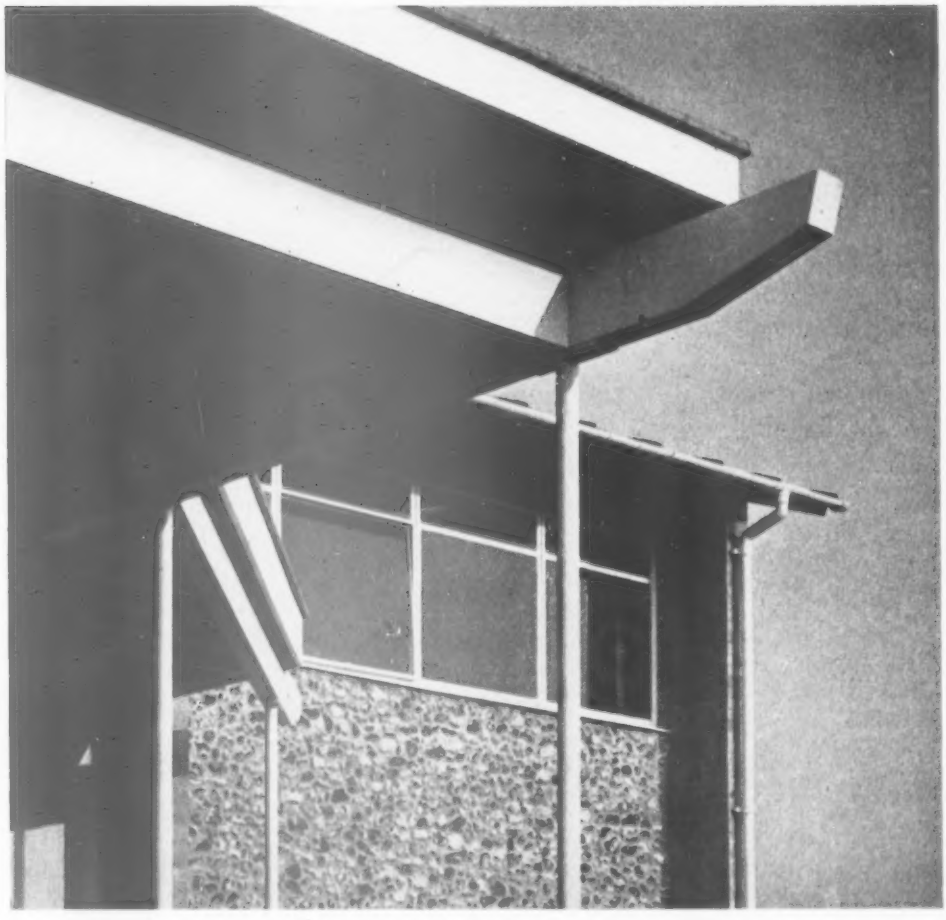

Attention to Detail

We proudly present the first Social Centre in a New Town, recently completed by us at Hemel Hempstead, and incorporating many materials requiring the attention of craftsmen. Reference to the photographs in this issue will demonstrate the point.

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Illustrated in this issue.

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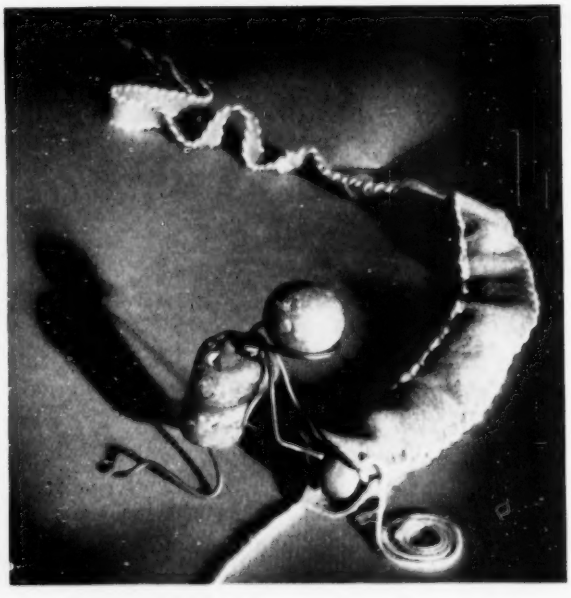

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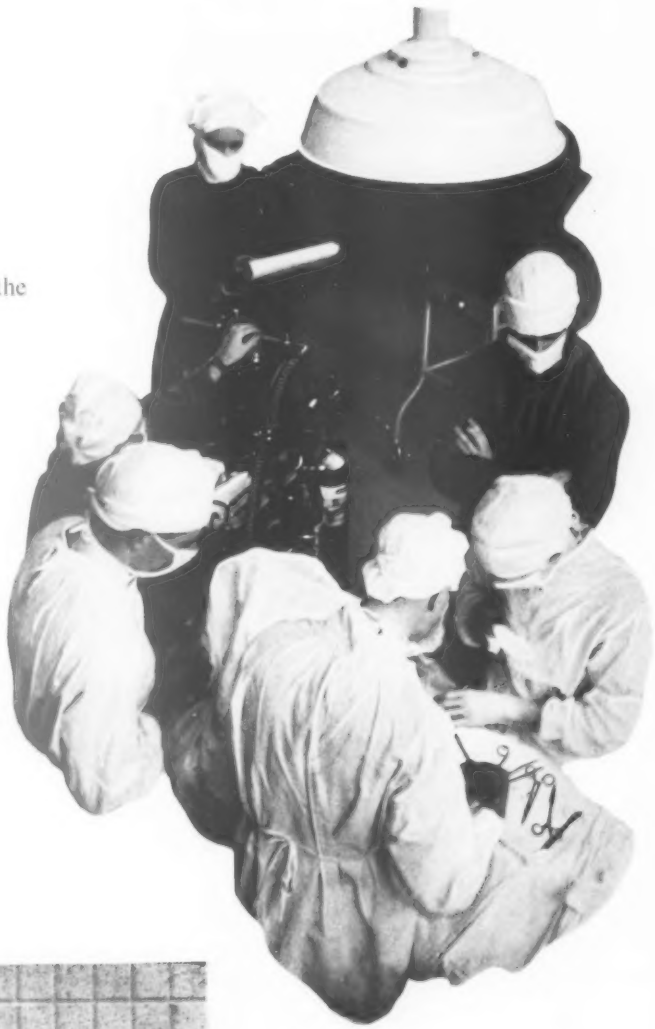

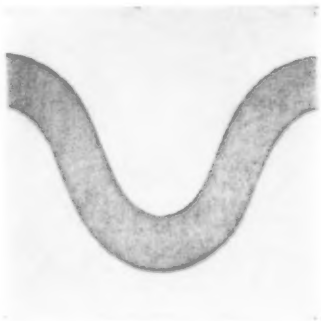

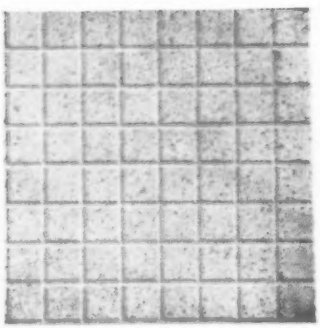

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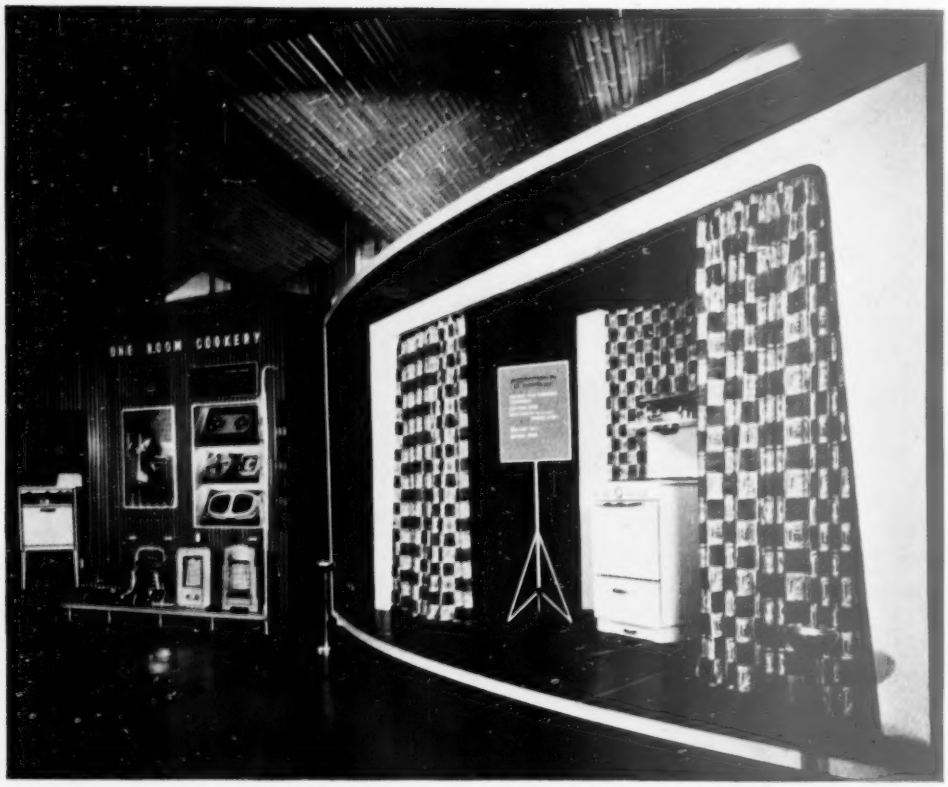

Setting for the special presentation of the latest designs in appliance development.

Exhibit designed by Montague Reed, M.S.I.A. Contractors: David Esdaile & Co., Ltd.

Gas in the design for living

Information

The new enlarged gas and coke exhibit at the London Building Centre is now open. In it visitors will find the latest information on the use of gas and coke, mainly for domestic, but also for commercial purposes. Also shown are approved methods of gas and coke installation, together with examples of the latest equipment. A technical representative is available to answer queries and there is a comprehensive reference library. Visits from individuals or parties are welcomed, (prior notice of a visit from an organised party will be appreciated).

Kitchen

Lounge

Utility Room

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GC. 27

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CORRUGATED SHEETS

TURNERS ASBESTOS CEMENT CO LTD
A MEMBER OF THE TURNER & NEWALL ORGANISATION
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B.8

Near or not so near

the prospect is inviting . . .

An inviting prospect is provided by this bow fronted lounge bar. Counter top is in laminated plastic Walnut with an Australian Walnut front, relieved by ebonized mould panels. The backfitting, divided by a central door in Australian Walnut, is en suite with the bar incorporating mirrors, concealed lighting, and display shelves in wood and glass, which during unlicensed hours are enclosed by Walnut lath roller shutters. Concealed lighting is included in the false ceiling over the servery which houses ventilating equipment.

The room decorated and furnished by the Peerage Suite completes a most attractive setting.

The Royal Hotel, Redditch

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Vol. 204 No. 25

THE ARCHITECT & BUILDING NEWS

17 December 1953

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ROAD IMPROVEMENTS

THE Minister of Transport announced last week a programme for road improvements to be carried out over the next three to five years. He is to "raid the Road Fund" for its legitimate purposes and allow payments from it some three times greater than recent amounts per year.

The Minister gave lists of improvements scheduled for priority in the next year or so. Many of the items are concerned with trunk roads (£22,000,000 in the next three years) the cost of which falls directly on the Exchequer and its Road Fund. The rest of the three-year programme amounting to some £28,000,000, will fall in part and in varying proportions on the Local Authorities; so that many optimists who imagined that, with the easing of the housing situation and other commitments, rates would tend to come down or at least steady at their present levels, will have to take second thoughts. For if classified roads are widened or improved up to the boundaries of Local Authorities, then the work must be continued onwards through or around the local authority area or render the external widenings useless.

It is only to be hoped that someone somewhere is planning the whole issue as a matter of co-ordinated national importance and that the priorities are not mere local or even regional improvements responsive to local wails unrelated to planned national transport. We shall probably be told, but of course the roads are being so planned, and be referred to past plans and reports; but we notice the Minister did not refer to anything like this, nor has much been said recently on the planning of transport generally with due regard to correct and economic relationships between roads, railways, canals, coastal routes and the air.

The whole matter of transport in this crowded land and that of road transport in particular has just got clean out of hand and anything that is now suggested is like much that has been done in the past; it is more or less panic action taken in response to localized appeals of districts or trades or in answer to political stress revolving around either a more or less correct visualization of the losses entailed through badly planned roads, or the failure of safety-first propaganda for the reduction of road casualties.

An early priority in the Minister's list is the Cromwell Road extension scheme in London, a much delayed but presumably necessary improvement of the western approaches. What is its relation to the more central parts of London? Is it merely going to shift the bottle-neck or create new bottle-necks nearer the centre, where land for widening or improvement will be proportionally higher in value? This is only one example of unco-ordinated method from the London area and is, of course, only concerned with the radial approaches; now that the innermost ring road of the County Plan is abandoned, are the other rings and radials fully adequate and related to the Cromwell Road extensions? The very fact that such questions can be asked means that mere expenditure of money on local improvements does not relieve or eradicate the doubts of those whose training and experience enable them to survey a wider field than that viewed by the Ministry of Transport or even by regional authorities acting locally.

How much will the congestion in the centres of our large towns and, in particular, London, be relieved by the proposed expenditure? We have had it put to us that the whole matter of road traffic is a very vicious circle; nothing (unless it be a slump) seems to be able to stop the manufacture of cars and other road-transport vehicles and the improvement of roads can never seem able to catch

up with the increase of numbers of mechanical units. If this is so, congestion will always exceed improvement; or, alternatively, road improvements will only encourage more vehicles until the final state will be a stationary one with little or no possibility of movement at all. Which turn of cynicism is perhaps more imaginative than much else that has been said lately.

The problem of the centres is that there is already not enough room to move; the roads are no longer traffic ways but have become waiting and parking ways. Even if we shall be able to move more freely on the open road what relief will that bring about inside the congested centres? Or, again, will ease of approach to the centres cause the latter to be even more congested? The legalization of parking by meters and other devices is no answer. Widening streets by setting-back whole frontages is notoriously the most expensive sort of urban planning. And, of course, central traffic streets can be too wide and can stultify the movement of pedestrians and increase the difficulty of efficient delivery and despatch of goods and waste and probably lead to an all-round increase in the height of urban buildings.

We are sure that there are other ways; some have been suggested from time to time in planning reports and traffic investigations by those who can see that road traffic is only one factor of human movement. Mere bigger and better and faster roads is only a part way out, an engineering solution of a problem that is really economic, three-dimensional and common-sensical and which concerns people as travellers on foot as well as in vehicles, the movement of goods as well as the quietness and amenities of life and the correct relationships with other modes of movement, existing and potential. It is the specialization of experts in narrow fields which often makes present and future problems all the more difficult of solution.

EVENTS AND COMMENTS

THE BENEVOLENT BALL

Even though I did not win any prizes, I, in company with lots of other people, thought that the A.B.S. ball at the Dorchester last Wednesday was the best yet. Some 800 persons crammed the ballroom to rather more than capacity and this was after every available partition had been lowered or opened. Last year the dances were much too long but the organizers, who have always shown themselves most willing to reconsider suggestions, this year halved their length. This was fine for people like me who were sitting near the floor but I fear that there may be some counter claims from those in distant corners whence it must have taken half a dance to reach the floor.

If the Ball goes on developing there will soon be more non-architects than architects attending, for the rest of the building industry has taken it up in a big way and this probably accounts for the number of Jereboams and Magnums of champagne that were popping near mine—none, unfortunately, quite near enough.

There were several large parties and this year some of them were arranged at long tables. This looks well but is, in fact, bad for circulation if you are on the side away from the floor. I thought that the food and the service were very good but I also think that it would be nice to have another band next year. Something with a little more fire in it. George Enescos outfit has had four goes and is altogether too refined for me. Few of us are so old that we want continuously to be reminded of our youth by old tunes.

The floor was far too crowded to do much more than process in a solid phalanx and this, I believe, is posing the organizers a problem. This year they could have sold more tickets but they had no room. In future years are numbers to be limited or is the Ball to be moved to a larger room? Surely there are few larger, unless one considers the Hammersmith Palais or the ex-ice rink at Grosvenor House. I think that it would be a great pity to make it a larger party. I would like to see it limited to 600 tickets, but this would probably be bad for business. As an alternative, why not hold a summer ball in addition? More particularly next year, as there is to be no R.I.B.A. reception. Poor committee.

The ball programme contained some jolly advertisements but modesty forbids me to mention who was the author of the best of them. The standard of beauty was again high this year and there seemed to be more young people than usual. Doubtless if I were a real social hound I would here record the names of the most beautiful and best dressed ladies, but since most of them were in the party I was in it would be going perhaps too far. Dears, you all looked ravishing. Chums, you all looked like super space men. I can say no more.

HOUSE WARMING, OR THE SEVEN LAMPS OF CHARLOTTE STREET

The only time that architects' offices are really tidy is when parties are given in them, and when that coincides with a house warming, cleanliness and new paint is an added attraction. The Seven Lamps of Architecture, better known perhaps as the A------ C-- P------, have moved to a reconstructed building on the corner of Charlotte Street and Goodge Street. Very pleasant, too. In the basement they found the foundation stone giving the architect's name as Morgan, the builder as Atkinson, and the date as 1829.

Casting my eyes over the remarkably tidy book shelves in the reference library, I saw a full set of Jaggard and Drury. You will, perhaps, forgive me for being surprised. I pointed the volumes out to one of the Lamps. "Oh yes,

rather," says he. "Couldn't get on without them." And it is not as though they propped their boards up on books in that office for all their drawing tables are being converted to a modified form of engineer's steeply sloping board with a pulley supported straight edge. This is the first architect's office I have found so equipped and is in marked contrast to the Scandinavian practice of using flat tables, upon which I commented in the summer. Judging by the wonderful food prepared by the female staff this firm could always fall back on running a restaurant in hard times, and they have some promising bar-men there, too.

SAVOY AND BROCCOLI

I am just a cabbage when it comes to high finance but it seems that someone has netted a cool half million out of the goings on about these two hotels. Tax free, too, and no expensive assistants to pay. Aren't we the idiots? The papers have been full of it; *Punch* had a not very funny joke about it; a new Berkeley has been designed, as it were, overnight; Astragal has shed a salt tear over the old; I saw somewhere that the new one is by the P.R.I.B.A. In the end it still belongs to the same people but they have paid a certain Mr. Samuel, unfortunately not *my* Mr. Samuel, half a million for the honour of keeping their own property. And you and I, dear friends, will still not be able to afford to frequent either.

LONDON CHRISTMAS TREE

Once again the kind people of Oslo are sending a Christmas tree to the people of London, it will as usual be erected in Trafalgar Square and will be illuminated nightly from December 19 until January 5. The M.o.W. has issued a junior Bradshaw to tell people at what times the tree and the fountains will be lit up and announcing that various choirs will sing carols round the tree on the five nights before Christmas. A nice idea but whoever would have suspected the People's Dispensary for Sick Animals of having a choir?

HAMMERSMITH SCHOOL EXHIBITION

My picture shows bricklayer students of the Hammersmith School of Building and Arts and Crafts at work. Are they preparing for the past, present, future, or what? This school makes a good deal of its efforts to integrate the various building trades, architecture and the arts. Who designed the fireplace, if fireplace it is, in the background? No one from the school of architecture I'll be bound. "That isn't architecture, that's bricks, but mind you, damned well laid." It really is not quite fair to lads to

Left : Paul Nightingale, Dip: U.C.L., F.R.I.B.A., Master-in-charge of Architecture, examining one of the display panels at the Hammersmith School of Building & Arts & Crafts Exhibition.

Right : Plaster Group for Bronze Casting by Ralph Brown, 4th Year Student in Sculpture Group.

let them spend evening after evening running up monstrosities like this. Unfortunately, although you cannot have good architecture without good craftsmanship you can have good craftsmanship without good architecture of any kind.

UNDERNEATH THE CORONATION ARCHES

Last week we published a picture of the projected new palm house at Kew, in the construction of which it is proposed to use the four decorative arches which stood in the Mall for the coronation. The present palm house, designed by Decimus Burton, is closed because it has been declared unsafe (by experts, of course), due to the corrosion of the metal work. It will have to be replaced. The Ministry thinks that the "new Palm House would be a centre of wide interest, and should provide for the arches a fresh use worthy of their historic association." But would the arches contribute to a good architectural solution of the problem. I think not. One might as well ask Mr. Basil Spence to incorporate them in Coventry Cathedral. The arches looked very pretty in the Mall and they have now done their job. They should be scrapped. Someone will say that to use them for the palm house will save money. I wonder. If they must be kept, cover them with black crepe and use them as tea cosies for gas works. If they are scrapped it will, of course, deprive boring grandfathers in 2000 of saying "see those arches m'dear, used at the coronation of Elizabeth II, erected in Piccadilly Circus or was it Trafalgar Square? I remember them well." After all, this sort of thing has been done before, at the Crystal Palace and at the Rotunda at Woolwich, which was built to cover and follow the shape of a tent used by William IV, Queen Victoria . . . or was it Edward VII . . . where? I am sorry to be so unkind to Sir David, and so near Christmas, too. But I reckon that his outfit has thought up or sponsored a couple of bad ideas lately.

SCULPTURE IN 1954

The L.C.C. is to put on another open-air exhibition of sculpture next year. This time it will be in the grounds of Holland House, Kensington, which the L.C.C. recently bought from Lord Ilchester. The exhibition will be open from May until October. This wild woodland should provide some perfect settings, and if the distinguished committee of experts (yes, experts) is anything to go by it should also be a notable exhibition. The garden ballroom of ruined Holland House is to be converted into a café—with the South Bank and not Kensington Gardens as a model I hope—heigh ho! Buns in the jungle.

FUNNY STORIES ABOUT ARCHITECTS—CHRISTMAS FEATURE

Friends! Send me your funny stories about architects. I do not promise to publish them nor yet to read them and the following (if submitted) will be returned in unstamped envelopes. The one about the architect who forgot to provide a staircase; the one about the Taj Mahal Hotel in Bombay being built back to front; the one about the barrack building built in the Curragh when it should have been in Jubblepore and vice versa; and, engineers please note, the one about the bridge being built in China with its foundations uppermost. All the same one does occasionally hear strange things about architects. A book has recently been published about an American named Mizner, who had a lucrative practice in one of the more expensive parts of the States. One of his clients asked to see the plan of his house. "Plans," says he, "why the house isn't finished yet!" A British architect named Cowlishaw was commissioned to design a house for some people in Colombo, he sent them a wax model which melted in the Red Sea on the way out.

ABNER

NEWS OF THE WEEK

L.M.B.A. President's Christmas Message

In a Christmas and New Year message to his Area Chairmen, which he asked them to pass on to their members, the President of the London Master Builders' Association, Mr. Gerald Hills, says:—

The past year has been a notable one but, like all others, it leaves a number of unsolved problems to be carried over into the New Year. Outstanding among them is building costs, and while some of us think we may have passed the peak, we all realize that the cost of building is still too high to encourage either public or private clients to embark readily on new building projects. It is not easy to see how prices can be brought down when the cost of so much of the work we do is fixed by factors beyond our control, but efficiency breeds efficiency and if each one of us were to examine his own organization we might well find it possible to make improvements and economies.

The outlook is now much more encouraging, and we have been told officially that the more work we do the more we shall be encouraged to do.

One section of work to be done will be near to our own hearts, namely, the rebuilding of the City of London. The Government has promised now that it shall go forward "at speed." The Lord Mayor has promised to make that rebuilding his war cry for 1954. The architects have been asked to get to work on the plans, and the order of issue of the licences is already under discussion.

A serious start, too, is to be made on the repairs of existing houses and the modernization of sub-standard properties. This is work which falls naturally to the medium and small builder, and this activity should encourage those of our members to look into the New Year with increasing confidence.

I must say a word about apprenticeship which, in spite of all we have done, remains unsatisfactory. By medals and other awards we are attracting likely boys into our industry but at the same time we are not providing enough vacancies for them. So, in sending my best wishes for Christmas and the New Year, I leave this thought with you. Do look seriously at apprenticeship in the light of the encouraging circumstances in which we find ourselves. If you are already training apprentices, try to take some more. If you have no apprentices, then think of the future of your business and of the needs of our industry and see if you cannot make a start with one or two in the New Year. I know from practical experience that you will gain a great deal of pleasure from the training of the boys and in taking a personal interest in their welfare.

APPOINTMENT

Mr. N. C. Dowell, A.R.I.B.A., principal assistant architect to Wakefield Council, has been appointed chief assistant architect for Education and Buildings to Wolverhampton Corporation, in succession to Mr. T. W. Gregory, A.R.I.B.A., who has been appointed deputy city architect, Gloucester.

Cathedral Acoustics

The Acoustics Group of the Physical Society is holding a meeting on January 5 to discuss cathedral acoustics. The meeting will be held at the Trinity College of Music, Mandeville Place, London, W.1, at 5.15 p.m., and the discussion will be opened by Mr. Hope Bagenal, D.C.M., F.R.I.B.A.

The subject has special interest at the present time because new cathedrals are projected here and abroad, and because new developments in public address design may help to resolve some of the conflicts between acoustical requirements for preaching and for music. Anyone interested is invited to be present.

RETIREMENTS

Director of Works and Services in Scotland

Mr. W. A. Ross, C.B.E., F.R.I.B.A., will retire from the post of Director of Works and Services at the Scottish Headquarters of the Ministry of Works on December 31, 1953, on the completion of over 41 years' Government Service. Mr. Ross will be succeeded by Mr. J. E. R. G. Kean, A.R.I.B.A., who is at present Superintending Architect at the Ministry's Scottish Headquarters. Mr. Kean received his architectural training with Messrs. Morley-Horder and Briant Poulter, F/F.R.I.B.A., London, and entered the service of the Office of Works as a Draughtsman in 1927. He was transferred to the Shanghai Office of the Department in 1936 and during his three years' foreign service was responsible for the design and maintenance of all Diplomatic and Consular establishments in the Far East. Mr. Kean was transferred to Scotland in 1946 as Superintending Architect and in this capacity he has been responsible for controlling the design of all new buildings erected by the Department in Scotland.

Mr. W. J. Durnford, F.R.I.B.A., a senior architect in the L.C.C. architect's department, is to retire on January 31, 1954. Mr. Durnford, who will be 65, entered the service of the L.C.C. in 1912, Mr. Stanley Pinfold, A.R.I.B.A., the housing architect in the L.C.C. housing and valuation department, will retire on January 6, 1954, at the age of 65.

CHANGE OF ADDRESS

Messrs. Max Lock and Associates would like to point out that the change of address notified last month applies only to the Bedford office: their London address remains 7, Victoria Square, S.W.1.

COMING EVENTS

The Institute of Fuel

December 22nd at 5.30 p.m. Lecture on the Festival Hall Heat Pump at the Institution of Mechanical Engineers, Storey's Gate, S.W.1.

Further Freedom for Private House Builders: Minister's Guidance to Local Authorities

Following the announcement by the Minister of Works in the House of Commons on November 30th that further freedom can now be given to builders of private houses without detriment to local authorities' programmes, Mr. Harold Macmillan, Minister of Housing and Local Government, has sent a circular to housing authorities giving details of the new arrangements, which come into force on January 1st, 1954.

As from that date the size of houses for which a licence will automatically be granted by a local authority will be raised from 1,000 sq ft to 1,500 sq ft. Builders will be issued automatically with licences to build up to 50 houses of not more than 1,500 sq ft at a time instead of the present limit of 12 houses of not more than 1,000 sq ft.

Local authorities are told that applications to build houses between 1,500 and 2,500 sq ft should be considered on their merits, with due regard to the locality of the site, to any restrictive covenants, and to the family or other special needs of the applicant.

Any application for a licence to build a house larger than 2,500 sq ft or for a block licence for over 50 houses, will be submitted by the local authority to the Ministry's Principal Regional Officer.

Points which local authorities are asked to consider in issuing licences include: —

(1) The use of scarce materials should not be permitted to a greater extent, size for size, than in the local authority's own houses.

(2) There are circumstances in which it will be proper and desirable to issue a supplementary licence. The holder of the licence may be put to unavoidable additional expenditure between the time when the licence is issued and the completion of the house, e.g., there may be rises in the ruling rates of wages and materials or it may be found necessary or desirable to substitute more expensive materials or equipment during the building of the house.

(3) Applicants for licences should be ready to start building within a reasonable period.

CORRESPONDENCE

Re Russian Architecture

To the Editor of A. & B. N.

Sir,—The photographs of the Russian buildings, as published in your last issue, prove of considerable interest, as they again confirm the statement that has so often been made that their standards of design are at least forty years behind those of this country.

It is also amazing that so much time and money can be wasted on these huge blocks of flats and public buildings by decking them out with bastard Classic details, pseudo Gothic spires and all the spurious trappings of a decadent age, when the Russians themselves tell us in their own journals that they are striving night and day to provide housing for the teeming millions who are forced to live one family in a room.

These Russian hosts apparently "tell" their visitors (who incidentally are there for only a few days) that they erect many of these highly decorated huge structures in a matter of six to nine months (and part of this time is with temperatures down to twenty degrees below zero).

If this is so, then this amazing building time could be further reduced and the standard of design considerably improved if the designs relied on simplicity for effect.

Among those who visited Russia in this party appears the name of F. R. S. Yorke who was one of the Assessors of the Sheffield University Competition, the first place for which he gave to a scheme which had elevations that many think represents the quintessence of austerity, a "grid of glass and sticks of steelwork."

If this Assessor thinks so highly of plainness, would he kindly give your readers his opinion of the Russian buildings that he has so recently visited?

I am, etc.,
"CRITICUS."
(name and address given)

Storage Space

To the Editor of A. & B. N.

Sir,—I am grateful to Mrs. K. Smith for so lavishly increasing my laughter by her charmingly characteristic feminine reply to my letter. She is partially right in one of her assumptions; I am (for sufficient but irrelevant reasons) a bachelor, but, at 75 years of age and partly paralyzed, cannot accept her concluding advice. As to her main argument, who has denied the necessity of a boxroom, or of cupboards for essential needs? I have built some 200 individual houses mostly of the 3-4 bedroom class, and habitually provide separate cupboards for food storage, china, brooms, etc., as well as a boxroom at bedroom level, usually by a rundown of the main roof over a porch or loggia. I do not sleep in a flat or live in my office, but have for 50 years occupied with an unmarried sister houses of my own design, in which even future "writers of memoirs" are provided for.

As to lofts—the original subject of this correspondence—I have visited many and even contrived a few by request, but have found little to upset my previously expressed opinion. "Lofts" seem a female obsession!

EDWIN GUNN.

IN PARLIAMENT

End of a Chapter

Mr. Macmillan, Minister of Housing and Local Government, announced on December 10 his decision to disband at the end of the year the regional housing production boards. He said that in view of the success attending the efforts of all concerned in the housing drive he did not feel justified in continuing to call on the time of members of the boards, which had been so freely and generously given since their appointment. They had done their task so thoroughly that he had been able to agree that they should be dissolved from December 31. He added a message of thanks—in which the Ministers of Works and Labour joined—to the chairmen and members of the boards for their great contribution and the excellent way in which they had worked with the local authorities and the building industry.

Ceiling Heights

Mr. Mitchison asked the Minister of Housing and Local Government when, and why, he reduced the minimum height of habitable rooms in Model By-law (Buildings) 77 from eight feet to seven feet six inches; in how many cases he had refused to approve by-laws requiring eight feet; and why he refused to allow local authorities to enforce within their own areas a standard higher in this respect than that now prescribed by the model by-laws. Mr. Macmillan replied that the minimum height of habitable rooms was first reduced to 7ft 6in in the model by-laws issued in November, 1952, and it was so reduced for the reasons that since 1945 many local authorities had either amended or relaxed their by-laws to permit the building of houses with rooms of that height, that such height was regarded as adequate on both hygienic and architectural grounds, and that it was recommended by the advisory committee which assisted in the preparation of the model. He had refused approval to a by-law requiring a greater height in about 100 cases, and in most of them the model had now been adopted. He thought it unreasonable to enforce as a penal requirement a height greater than that which well-informed opinion regarded as adequate. (Dec. 8.)

Mr. Osborne asked the Minister if, in view of his decision that all local by-laws must permit houses to be built with a minimum 7ft 6in ceiling height, he would give an undertaking that local authorities who wished to build up to 8ft would be granted the necessary consent to borrow. Mr. Macmillan said he was satisfied—as was his predecessor—that a 7ft 6in ceiling height was adequate. Authoritative opinion was that it was in no way detrimental to health. It was generally welcomed by architects as giving better elevational proportions. Many local authorities had adopted this ceiling height and had thereby saved building materials and costs, and so kept their rents down. He would expect local authorities wanting to borrow to provide higher ceilings to show cause.

From the general, Mr. Osborne asked in particular if the Minister was aware that the Cleethorpes Borough Council desired to maintain the highest possible standard for house building in their area; and if he would grant their request that the new local by-laws might require an 8ft minimum ceiling height instead of the 7ft 6in proposed. Mr. Macmillan said he was aware of the fact; he would not grant the request. He was satisfied on the advice he had received that a minimum height of 7ft 6in was generally satisfactory, and he knew of no special conditions in Cleethorpes which made it unsatisfactory there. (Dec. 8.)

Prefabricated Fate

Dr. Barnett Stross asked the Minister of Housing and Local Government what was his policy for the disposal of prefabricated houses when they had been occupied for 10 years. Mr. Marples, the Parliamentary Secretary, pointed out that Clause 14 of the Housing Repairs and Rents Bill dealt with those on open spaces. There was no statutory limit to the retention of the others. If any local authority wanted them removed, the Minister's principal concern would be the housing needs of the area. (Dec. 8.)

Bricks and Cement

Mr. Gower questioned the Minister of Works about current production and stocks of bricks and cement, and asked if he considered them satisfactory. Sir David Eccles told him that the production of bricks was steadily increasing. Demand next year might be greater, but if recommended economies were followed the demand should be met. The supply position could not be judged by the size of stocks which, because of the double handling charges, were always low. He hoped, however, that there would be some improvement this winter. About cement, he said that the requirements of the building programme were in the main being met. Production would continue to increase, and would, he hoped, enable stocks to be improved. (Dec. 8.)

Blitzed Cities' Prospects

Sir David Eccles, Minister of Works, told the House of Commons about the building prospects in blitzed cities under the new licensing arrangements announced on December 1. He said that under the new system allocations were no longer necessary. Work would be licensed up to the capacity of the building industry in each area. On this basis, he expected to issue licences for the blitzed cities as a whole to approximately double the value of the 1953 total allocation. Local authorities of blitzed cities were being advised to push forward negotiations with prospective developers and to keep up to date the programme of work they would like to see put in hand. At Plymouth, about which Mr. Foot had asked in particular, 362 building workers were employed on reconstruction of the centre in September. Next year, said the Minister, he was prepared to license double the amount allocated last year, and if applications for this sum came forward the total would substantially exceed the level of 1951. (Dec. 8.)

Hammersmith School of Building Exhibition

A brief survey of an exhibition at Lime Grove

WHEREAS within the field of human endeavour to-day specialization is inevitable, Hammersmith School of Building and Arts and Crafts, caters for all the principal divergences connected with Building and Visual Arts, and has under one roof or administration departments which deal with Architecture, Building and Building Trades, Dress Design, Engineering, Interior design, Painting, Pottery, Sculpture, Textile Design and so on. The School attempts to broaden the vision of its students by giving them an understanding of the material aims and problems of related technical trades and professions; thus, when the students leave school, they will be able to collaborate more closely with the professions and trades with whom they necessarily come into contact. Hammersmith, although not the only school in the country equipped for this broad field of study, is one of very few. The reason is not difficult to find: the organization required to produce a balanced curriculum or course of study acknowledging the departments which have an influence upon the work in hand, without throwing out of balance the study deemed necessary to become competent in the principal subject, is nothing less than vast. Indeed, Hammersmith acknowledges that it is only at the beginning of its integration of study, but it has every confidence that the road it treads is the right one and that it is well started upon it.

Edwin M. Rice, F.R.I.B.A., the principal, is to be congratulated on the high level of the exhibition at Lime Grove. It was rather less a display of students' work than exhibition of the very school itself. There were no star students, covered with glory and featured in a position of advantage. Rather was it a level theme of fine design and craftsmanship and good spirit was exhibited everywhere. From the principal feature in the entrance hall, pure exhi-

bitionist catch-your-eye, to the comprehensive statement of the school's scope in the first studio, through the various departments, studios, workshops, corridors and even on the coal dump, there was always something to please the eye, to fascinate.

In particular, the department of Architecture, although compact in its display, showed a high standard of design and presentation in both day and evening schools. It was a great relief to find a whole school of architecture carefully laid out in one studio. Would that other schools followed this method; usually there are more drawings than the average eye can stomach —a suggestion, perhaps, that everyone must have something in. Here, as everywhere in this exhibition, the accent was on quality, not quantity.

West Yorkshire Architects' Annual Dinner

The annual dinner of the West Yorkshire Society of Architects was held at the Queens Hotel, Leeds, on December 11. Proposing the toast of the Royal Institute of British Architects, coupled with the Society, the Lord Mayor of Leeds (Ald. D. G. Cowling) took the opportunity to criticize the illuminated Coronation fountain in front of Leeds Civic Hall. He did not know whether it was designed by an architect or not, but it was referred to as an "illuminated cascade." After recalling a fountain he had seen in Lucerne many years ago, and which he thought the Leeds version might have resembled, he said he was certain that, without being an architect, he could have designed something more fitting and more worthy of the great city of Leeds. He believed that the next 50 years were going to be a golden era for architects, offering greater opportunities than ever before in the history of the architects' profession. He suggested that architects designing new buildings for the centre of the city might consider building a suitable place in the city where helicopters could land. Responding to the toast, Mr. P. Garland Fairhurst, V.P.R.I.B.A., referred to the tremendous amount of work done by the Institute and appealed to the societies to give it their full support. The toast to the guests was proposed by Mr. Noel Pyman, F.R.I.B.A., who referred to the Hoffman Wood Trust who were soon to provide a part-time chair of architecture at Leeds University, and he hoped before long it would be possible to establish a full-time chair. Sir Charles Morris, vice-chancellor of the University, said there had been hopes that it might be possible by arrangement with the City of Leeds to incorporate a school of architecture in the University. What the future held was not for him to guess, but he would say how very pleased everyone at the University was at the prospect of being able to establish a part-time chair.

London Master Plasterers' Dinner

Over 400 members and guests attended the annual dinner of the London Master Plasterers' Association, which was held in Grosvenor House. Among the guests were Mr. D. C. Abbott, Master of the Worshipful Company of Plasterers; Mr. F. Ashe Lincoln, Q.C.; Mr. Gerald Hill, President of the L.M.B.A.; Mr. J. L. Phillips, President N.F.P.C., and Alderman H. D. Cowan, F.C.P.A., F.C.C.S., the Hon. Auditor.

Proposing the toast of the London Master Plasterers' Association, Mr. Gerald Hill said that the L.M.P.A. was a god-child of the L.M.B.A. Builders needed plasterers just as much as plasterers needed builders. His fellow-builders might erect fine buildings but they were never really finished until they had received the warmth and beauty that only a plasterer could give. Never had there been a greater need than there was to-day to develop citizenship and craftsmanship.

In reply, the President of the L.M.P.A. said that they were proud to say that their own association was in its 54th year and was still going strong. We represent, said Mr. Pool, a craft that has existed from time immemorial. It is this long tradition that makes us so proud of our craft, and as the work of rebuilding London progresses, we trust that we shall be permitted an opportunity to adorn the builders' structure as it was adorned in the past. For years the necessity for austerity has meant a restriction of the scope of the plasterer's art, but it is desirable to widen it again lest our craftsmanship be lost for lack of work on which to train our apprentices. The present emphasis on houses and flats is naturally of vital importance to the nation, but it represents an uninteresting training ground for plastering apprentices.

In conjunction with the National Federation of Plastering Contractors we are doing all we can to encourage apprentices; we have increased our output as an industry to enable the government to implement its housing programme, and we are very proud of the fact.

LAW REPORT

Before Mr. Justice Lloyd-Jacob, in the Queen's Bench Division, Sandown Hotels, Ltd., owners of the Sandringham Hotel, Sandown, Isle of Wight, sued Mr. Basil Llewellyn Phelps, a chartered surveyor and registered architect, of High Street, Shanklin claiming damages for alleged negligence or breach of duty in connection with repainting at their hotel. Mr. Phelps denied the allegations.

The plaintiffs' case was that, the Sandringham Hotel not having been repainted for about 10 years, the defendant was engaged to get out specifications and supervise the work in 1948 and 1949. The woodwork was repainted, and plaintiffs alleged that towards the autumn of 1949 the paint was flaking off and the work proved to be "a disastrous failure." They claimed that Mr. Phelps was negligent, in particular in failing to specify that all old paint be burnt off, and that an oily base primer containing metal be applied before the undercoat. They also alleged insufficient supervision.

It was denied by Mr. Phelps that the work as originally done was unsatisfactory or useless, or that, if it were, it was due to any negligence or breach of duty on his part. He warned plaintiffs that the paint would not stay on as the wood was saturated with salt, but was ordered to get the work done at once.

The paint and primer used were similar to those used on a local housing estate, and the specification was adequate as to the materials and preparation of the work. There was proper supervision, and defendant visited the site almost every day. He took all possible care.

Giving judgment, Mr. Justice Lloyd-Jacob said the plaintiffs were now having the premises repainted, and they had had the benefit of such paint as had remained on the woodwork. There was no evidence of damage except that the cost of the present repainting had been increased because, owing to the unsatisfactory nature of the existing paint it was found necessary to burn off the whole of it, re-prime, and apply two undercoats and one finish coat. It was now agreed that the cost of that extra work would be £350, which, with scale fees of six per cent, gave a total of £371, if defendant was liable.

As to liability his lordship said there was no lack of skill or care on the part of Mr. Phelps in drawing up the specification. He (the judge) could not find that the only way to secure adhesion of the paint was by completely preparing the wood as for new work, and the specification was satisfactory in calling for a "good quality pink primer."

It would be wrong to attribute the failure of the work to the paint itself.

His lordship said he did not accept Mr. Phelps' statement that he warned plaintiffs that, because of the condition of the woodwork, they should not expect satisfactory results. He had no doubt that a competent examination of the woodwork, as prepared by the contractors' workpeople, would have shown that, if new paint was applied to the surfaces not burned off, there was risk that the new paint would not adhere.

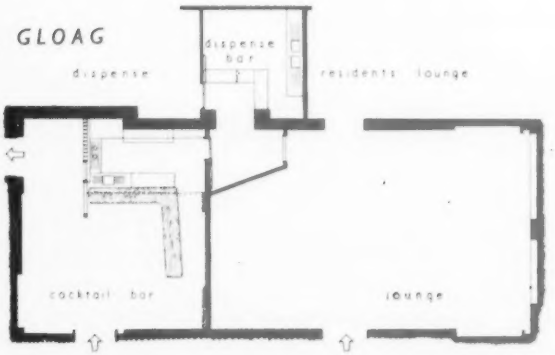
The defendant, who had extensive experience of conditions at the seaside, should have given particular attention to the preparation of the woodwork before the paint was applied, and his lordship held that he had not sufficiently supervised the work. On that ground the plaintiffs were entitled to succeed and there would be judgment in their favour for £371, with costs.

A stay of execution was granted.

Cocktail Bar for the Grand Hotel, Birmingham

architects:

DOUGLAS JONES, DENYS HINTON & H. L. GLOAG



PLAN

THIS bar, which adjoins the Entrance Hall of the Hotel, is intended for use in conjunction with a new restaurant on the First Floor.

Ceilings are in fibrous plaster on metal frames and hangers (to conform to the licensing justices' requirements for fireproofing).

The Bar itself is shaped and has a stone-coloured plastic top and a light beech edging. One arm containing the service area is screened below the counter level and has five grey leather "biscuits" mounted on the rosewood veneered front. The free arm is open below counter level. A brass footrail of special elliptical section runs the full length of the Bar.

There are no doors to the Bar and it is screened by a collapsible grill in polished aluminium which folds into the ceiling. A sliding gate housed in the closed section of the Bar closes the space at the free end.

The partition wall (which contains a sound-insulating quilt) is faced with ¼in-plate mirrors for the full height of 10ft and has dress curtains of white Terylene.

Facing the entrance to the Restaurant is a glazed screen with verticals in white beech and containing a service hatch for waiters.

The main walls are papered in two patterns. One fawn and white; the other black and white, adjoining restaurant exit. That behind the bar is partly finished in mirror and the rest painted dark olive. Bar ceiling and fascia are white and the main ceiling yellow. The carpet, which was specially designed, has a dark fawn ground with a predominately yellow pattern.

Except for rosewood veneers on Bar face and screen all wood finishes are in light beech. Cushions on chairs and stools are in yellow hide.

The main contractors were Maples, Ltd.

View from North-West showing main entrance.

ADEYFIELD HALL, HEMEL HEMPSTEAD

H. K. ABLETT, F.R.I.B.A., M.T.P.I., Chief Architect to the Development Corporation

P. R. BEE, A.R.I.B.A., A.M.T.P.I., & H. SCHOFIELD, A.R.I.B.A., Assistant Chief Architects

M. HARDSTAFF, A.R.I.B.A., Senior Assistant Architect in charge of Contract

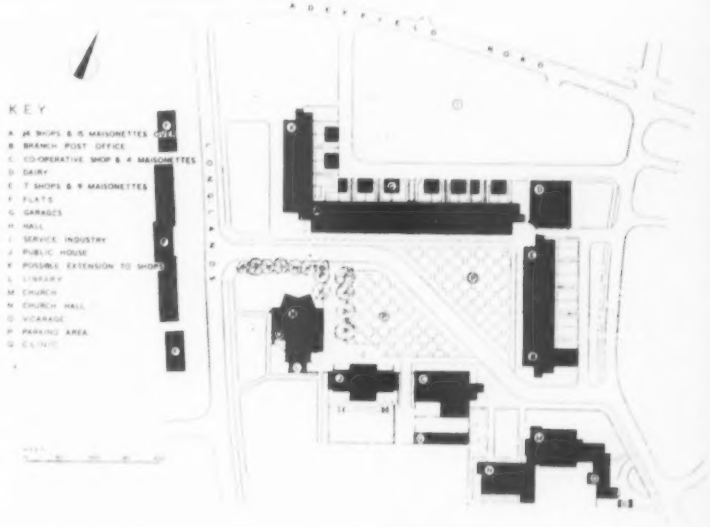
THIS is the first entirely new Social Hall to be completed in any of the New Towns. It took one year to build, at a cost of about £20,000 including furnishings. It completes the Neighbourhood Centre at Adeyfield illustrated in the accompanying block plan.

Lord Reith, the late Chairman of the Hemel Hempstead Development Corporation opened the building on Saturday, October 31.

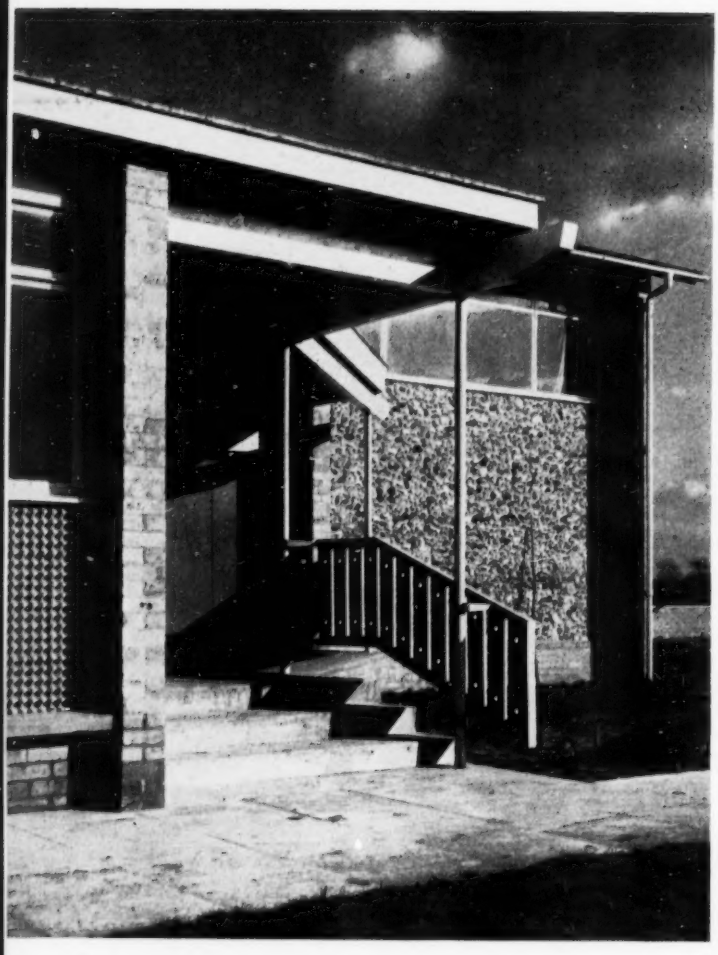
Planning

For reasons of structural economy the building has been designed on a simple " trabeated " principle, the " posts " being brick and the " beams " either reinforced concrete on the high level portion or M.S. channels on the low level portions. The room heights are 15ft 6in for the main hall and 8ft 3in for the ancillary rooms.

The hall is to be used for many different types of social functions: full-scale dances, children's dancing classes, banquets, musical recitals, public meetings, large and small committee meetings, and as a health clinic. These different usages imposed problems in planning which have been answered by placing all public rooms



ADEYFIELD NEIGHBOURHOOD CENTRE



Doctor's entrance to Health Suite

Service entrance to Kitchen

Adeyfield Hall, Hemel Hempstead, New Town

contiguous to the foyer and or lobby so that access can be gained to any single room without disturbing the occupants of another.

The refreshment room and large committee room have in turn been placed adjacent to the main hall in order that they can be used as sitting out rooms for dances. Most of the counters as well as the extendable stage have been designed on wheels so that rearrangements can be made. Should full stage and green room requirements be needed at a later date the hall can be extended to the South and the library converted.

Storage space is provided in a 20ft × 10ft basement under the floor of the main hall.

The Doctor's suite is used solely by the County Health Service and can be entirely shut off from the remainder of the hall when not in use.

Materials

The walls are built in either kilned stock bricks or Hornton (Limestone) random rubble. The panel infilling is in either random flints or egg-crate concrete. The dance floor is of 2½in strip Japanese Maple ; the remaining floors either cork, plastic tiles, concrete tiles or quarry tiles. The pitched roof is of copper ; the flat roofs of three layers of 3-ply bituminous felt.

Heating and Lighting

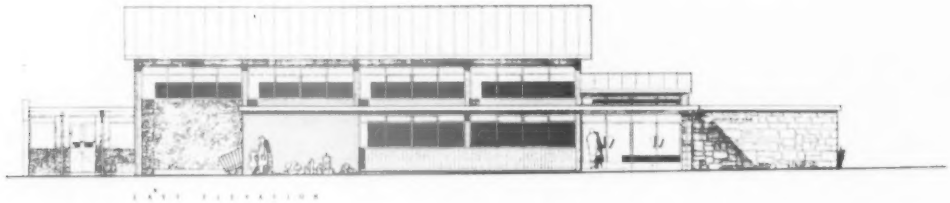
The heating, hot water, lighting and cooking are electric. The heating is provided by thermostatically controlled low-level convectors recessed into the walls and by high-level tubular heaters placed on the window cills to prevent cold downdraughts from the glass reaching the occupants of the rooms. The lighting is controlled from the ticket office with a subsidiary control near the band platform for the purposes of dimming the white and coloured lighting units in the main hall. The cooking for the buffet is done on two small units in the kitchen and hot drinks are provided by a buffet set.

Emergency lighting is installed in all rooms and incorporated in the general lighting scheme to make it as inconspicuous as possible. It is served by batteries stored in the basement and fed by a trickle charger connected to the main supply.

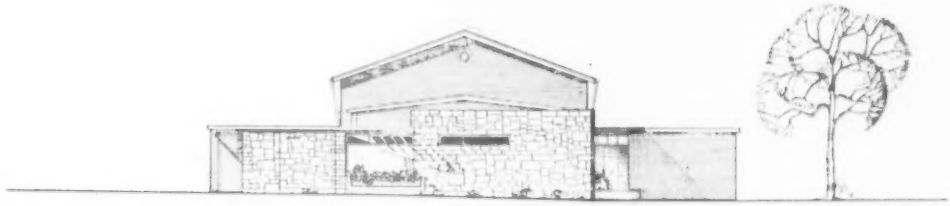
The exit signs over the main emergency doors utilize that property of Perspex of bending light rays so that they follow within the sheet. The Perspex is bent at 90 deg and has incised in it letters painted green which pick up the light rays. This does away with the necessity of displaying the actual light source.

Æsthetics

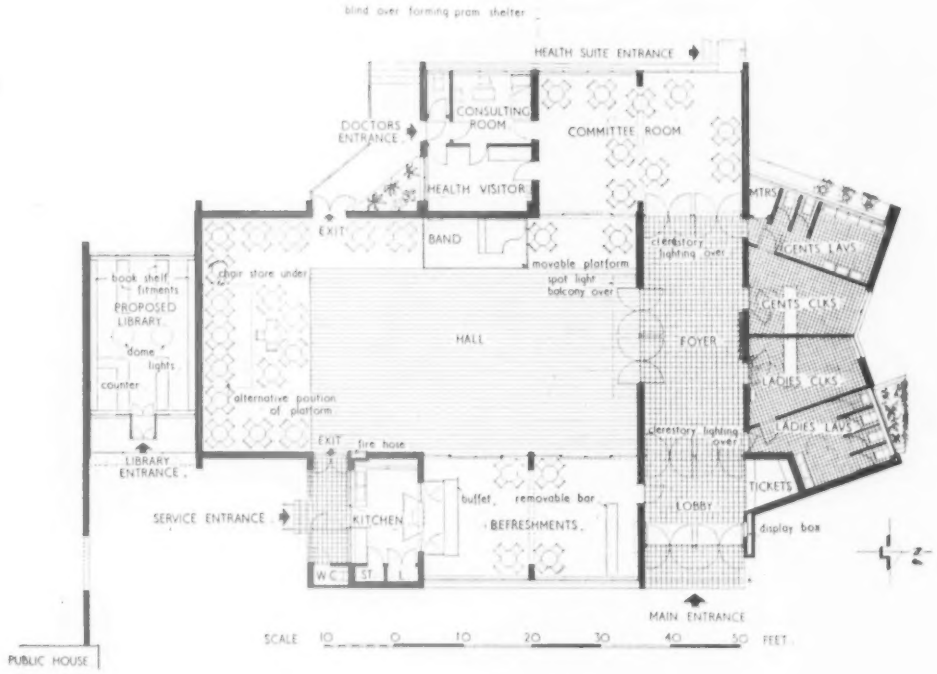
The building has a light and airy appearance externally and views can be obtained through the windows of the building from Longlands to the open neighbourhood centre beyond or conversely the neighbourhood



EAST ELEVATION



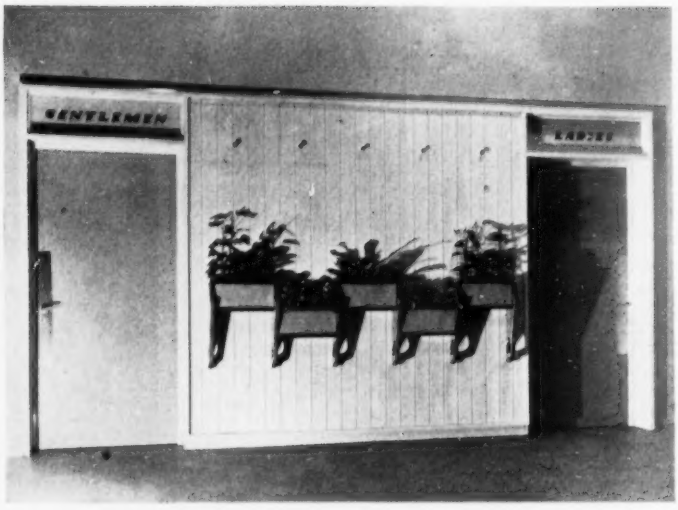
NORTH ELEVATION



Plan of Adeyfield Hall

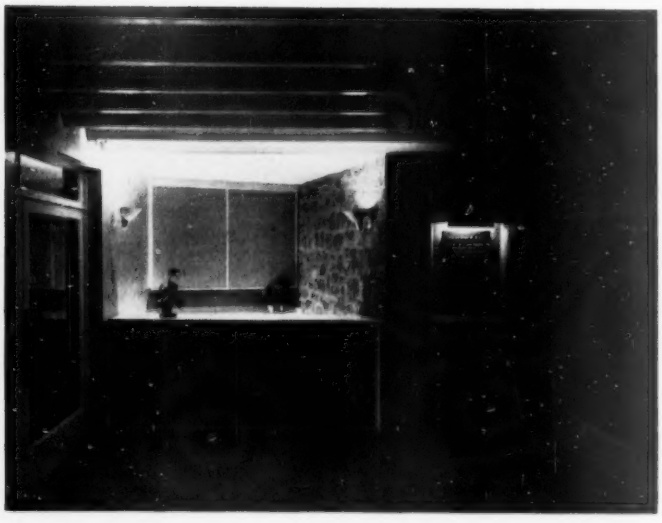
centre to the flats in Longlands. The barge boards are tapered from the apex to the eaves and the soffits are sloped to follow the roof—a detail used on both the flats and single persons' dwellings which stand in close proximity to this Hall. The flints appear elsewhere on various buildings and screen walls. The stone wall is a completely new material to this neighbourhood, its solidarity emphasizing the main entrance to both the neighbourhood centre and the entrance to the hall itself. The 1 to 3 (cement-coarse sand) egg-crate concrete blocks which appear under the low-level windows are intended to satisfy a need for a deeply textured material at these points.

The height of the main pitched roof is such that standing on the pavement outside the shops to the east of the Neighbourhood Centre, the ridge appears at exactly the same level as the coping of the flats in the background. The pitch of the main roof is reiterated on plan in the shape of the north wall and the pitches of the two copper roofs are integrated in that they meet at a point which is the extremity of the committee-room roof as can be observed on the elevations.



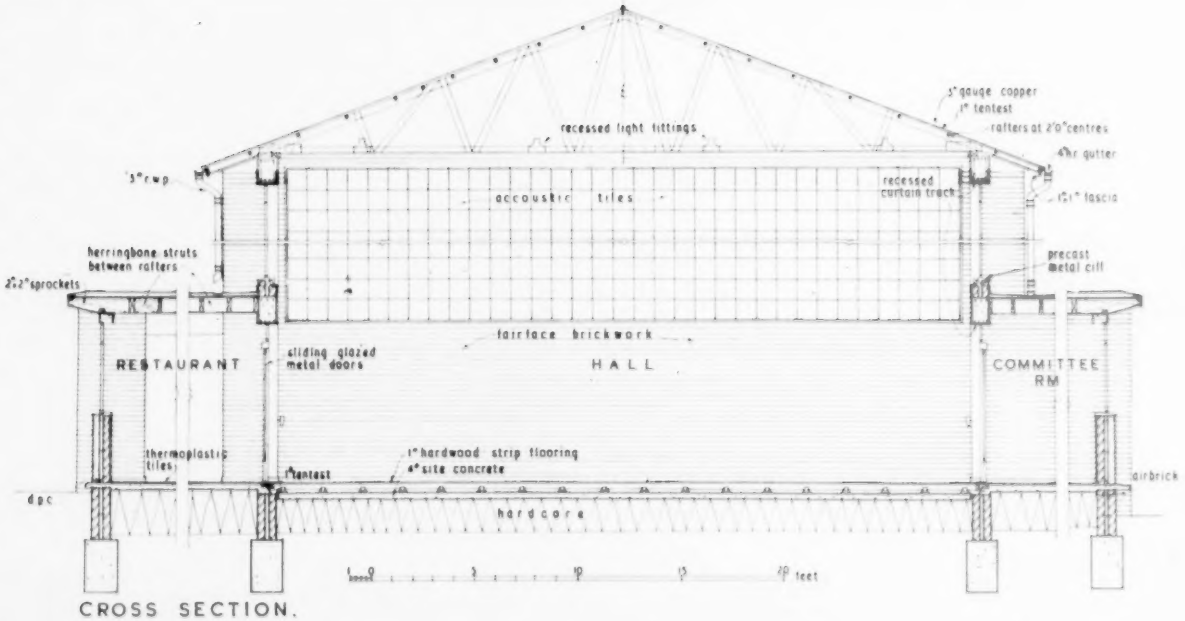
Adeyfield Hall
Hemel Hempstead
New Town

Cloakroom entrances in the Foyer. The vertical soft-wood boarding is painted. The plant racks are in mahogany, french polished.

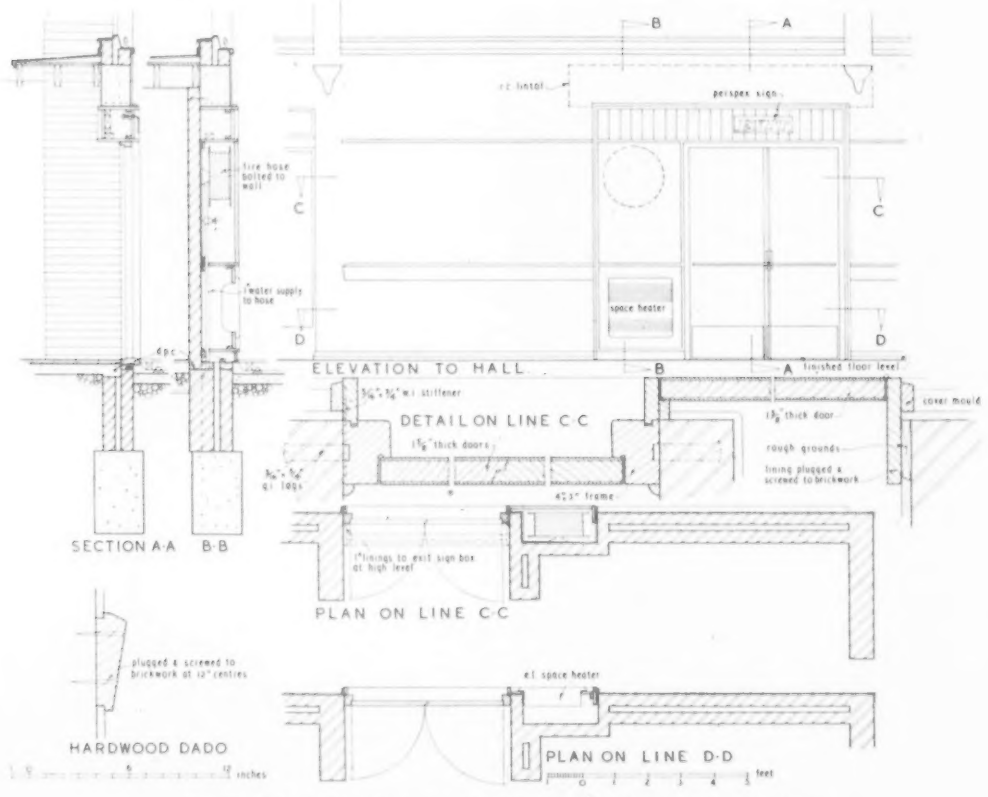


The main entrance lobby. The ticket counter is faced with vertical weathered sycamore boarding. The floor is finished in grey coloured plastic tiles. Open joists are painted broken white with plastered soffits between—Ming yellow. The ends of the joists on the Foyer side are carried on wrought iron brackets.

On the facing page, a view of the main hall with maple strip flooring prepared for dancing. Above the entrance doors is a spotlight platform faced with tongued and grooved boarding. Fabrics are of contemporary material and predominantly of a wine colour.

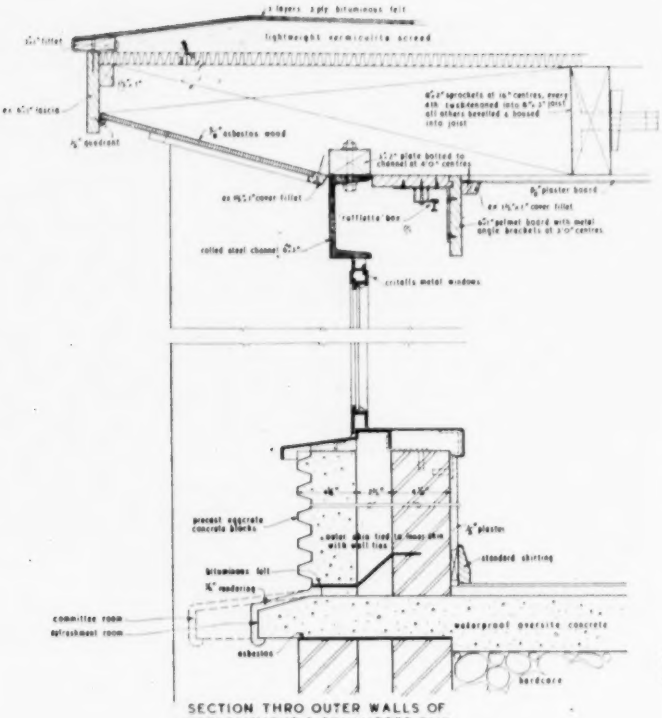


CROSS SECTION.

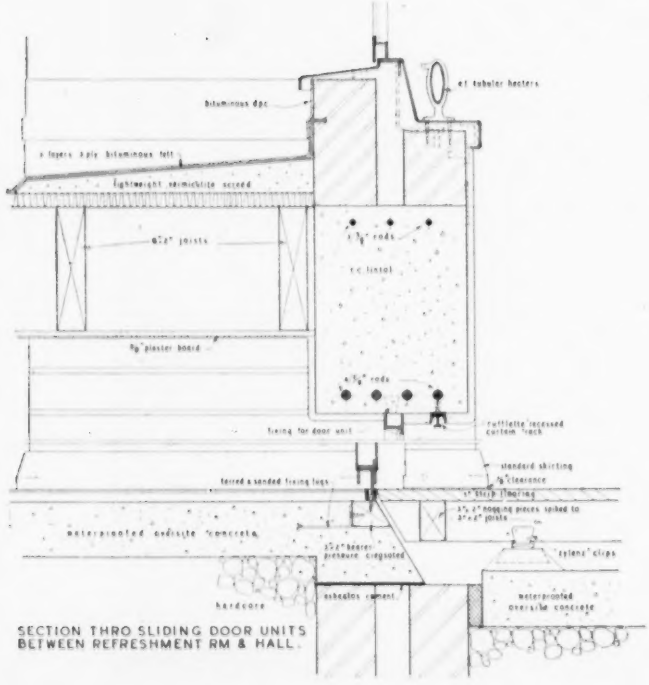


Detail of the main exit door to hall showing treatment of the fire hose.

Adeyfield Hall, Hemel Hempstead New Town



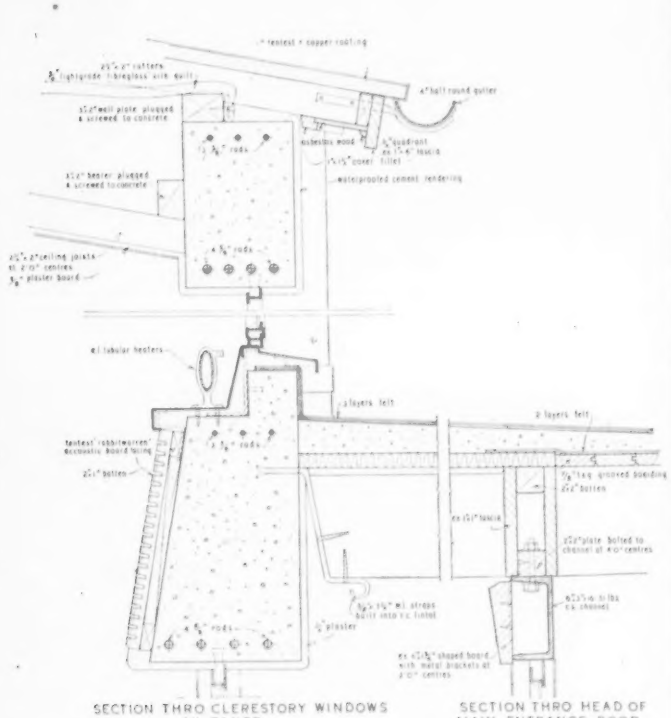
SECTION THRO OUTER WALLS OF REFRESHMENT & COMMITTEE RMS



SECTION THRO SLIDING DOOR UNITS BETWEEN REFRESHMENT RM & HALL.

General Contractors: Brown & Clark, Ltd.

Bituminous Felt Roofing: Permanite, Ltd. *Clips for Dance Floor:* J. C. Birch, Ltd. *Copper Roofing:* Broderick Insulated Structures, Ltd. *Cork Flooring:* The Resilient Tile & Flooring Co., Ltd. *Counters & Fitments:* Central Shopfitting (London), Ltd. *Curtains:* C. S. Everett. *Doors:* Walter Lawrence (Kensington), Ltd. *Door Furniture:* Alfred G. Roberts, Ltd. *Drugget:* Burfield & Son, Ltd. *Electric Heating & Lighting:* The Eastern Electricity Board. *Firefighting Equipment:* L. & G. Fire Appliance Co., Ltd. *Lettering:* The Lettering Centre. *Lighting Fitments:* Troughton & Young (Lighting), Ltd. *Maple Strip Flooring:* Hollis Bros., Ltd. *Metal Windows and Doors:* The Crittall Manufacturing Co., Ltd. *Metalwork:* Clark Hunt & Co., Ltd.; J. W. Cubbage & Son; McLaren Johnston & Co., Ltd. *Mirrors:* James Clarke & Eaton, Ltd. *Paint:* Hadfields (Merton), Ltd.; The Inertol Co., Ltd. *Plastic Tile Flooring:* The Marley Tile Co., Ltd. *Sanitary Goods:* Ashley Brandon (Kensington), Ltd.; Sharpe & Fisher, Ltd. *Sound Equipment:* Tannoy Products, Ltd. *Stacking Chairs and Tables:* Metchair, Ltd.



SECTION THRO CLERESTORY WINDOWS IN FOYER

SECTION THRO HEAD OF MAIN ENTRANCE DOOR.

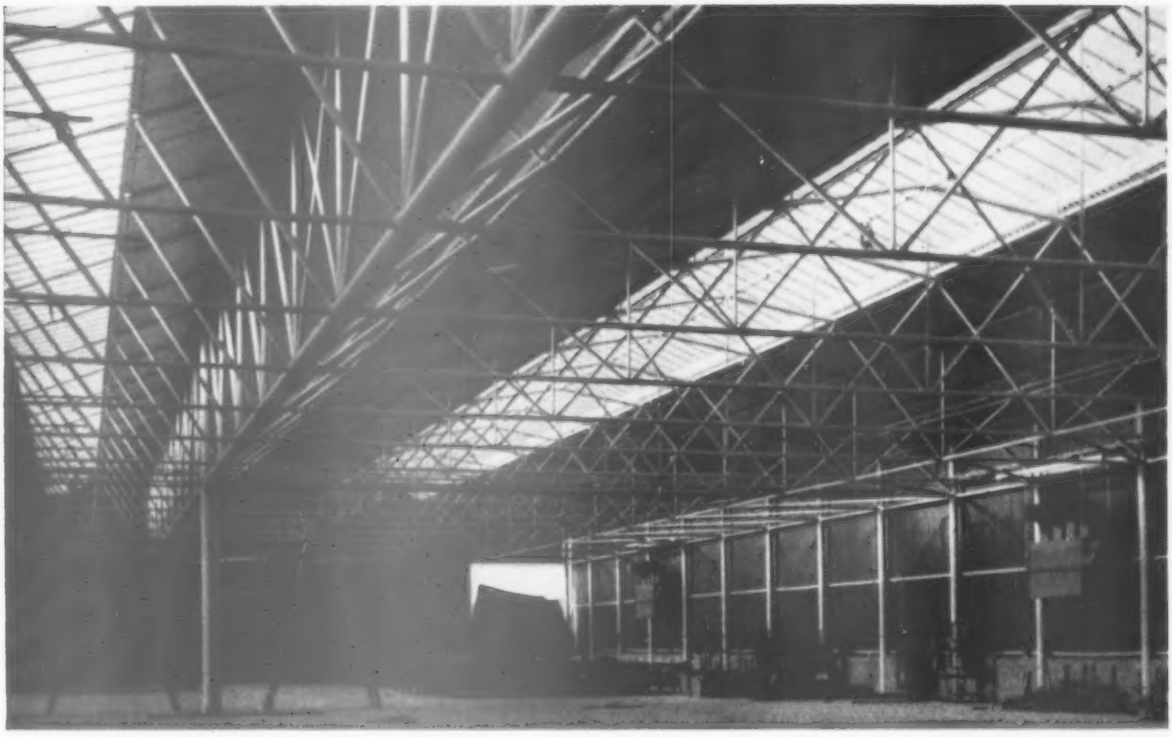
H. K. ABLETT,
Chief Architect

P. R. BEE,
H. SCHOFIELD,
Assistant Chief Architects

M. HARDSTAFF,
Senior Asst. Architect-in-Charge

T. L. LILLEY,
P. E. SADLER,
Assistant Architects

N. H. J. CLARK, A.I.L.A.,
Landscape Architect



Steel Tubing Used for a Factory Structure

TUBEWRIGHTS NEW FACTORY, KIRBY

architects: SIR ALFRED SHENNAN & PARTNERS. Consultant Engineer: T. BEDFORD

DESIGN, development and production of standard tubular steel structures were pioneered in this country and are a completely new form of export, unknown before the war. Although the possibilities of tubular steel construction were recognized long ago—the Forth and Menai Bridges are outstanding examples—it has only become a practical and economic proposition through recent welding techniques, and it was only this year that British Standards have been published putting the official seal of recognition on tubular steel construction.

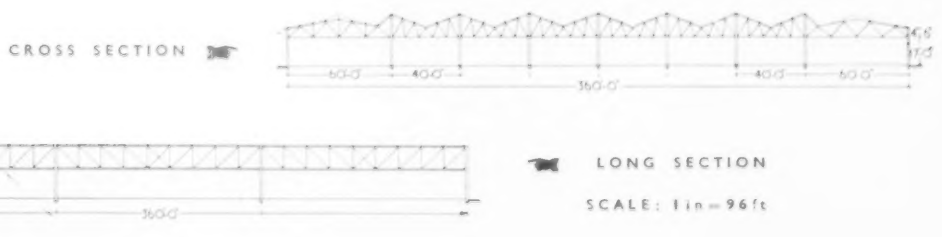
Already in four years the Arcon Group of firms, of which Stewarts and Lloyds are founder members, have exported pre-fabricated structures to the value of more than £4,000,000 to 72 countries. These buildings—all with tubular steel frames—have been used not only for housing but for factories, churches, hospitals, schools, and industrial buildings of all kinds.

An all-welded tubular steel frame factory—believed to be the first to be wholly fabricated on the site and the second largest to be all-welded—is nearing completion at Kirby, near Liverpool, for Tubewrights, Ltd., a subsidiary of Stewarts & Lloyds, Ltd.

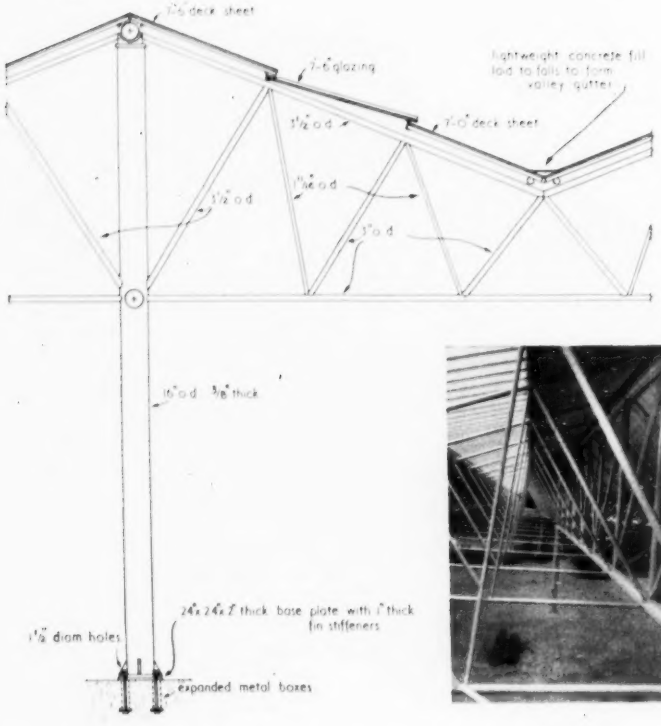
The factory, which will turn out tubular steel structures for a wide variety of purposes at home and abroad, including tubular steel roof-trusses, bridges, jibs, gantries, transmission towers, cable drums, gates, fencing, and other equipment for materials handling, agricultural, mining and quarrying fields, is itself a demonstration of the use of welded tubular steel for construction purposes. Tubes for its construction were delivered to the site in approximate lengths and were shaped, welded and erected by the firm's own men. All joints are welded, the only bolts being those for anchoring the columns to the foundations.

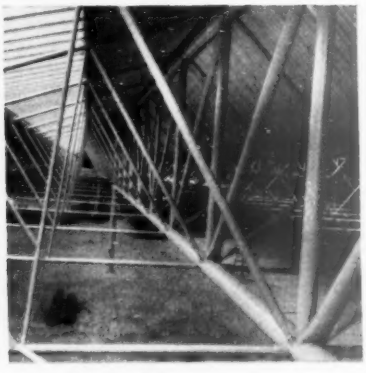
From the delivery of the components to the site, the welding and erection of the steel frame, covering 141,000 sq ft and using 415 tons of steel, took 30 men four and a half months. Six men were employed on preparation of material, 10 on fabrication and the rest on erection. After assembly on the site the girders, weighing 6½ tons each, were placed in position by mobile cranes in an average time of seven minutes.

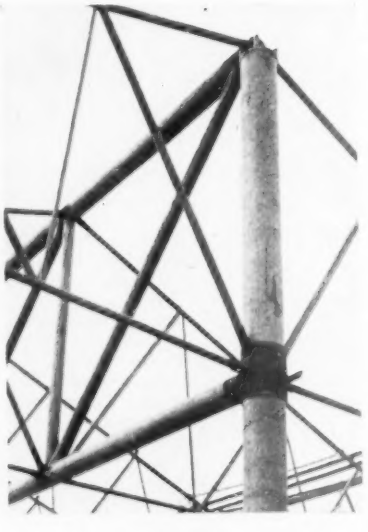
The floor area required for the main production shop was approximately



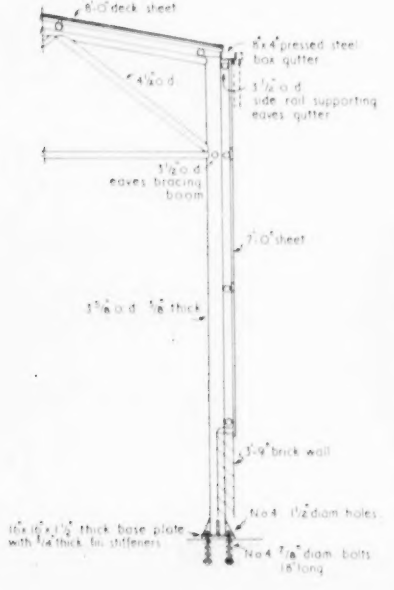
TUBEWRIGHTS FACTORY


6'-0" deck sheet
7'-6" glazing
lightweight concrete fill laid to falls to form valley gutter
3½" o.d
7'-0" deck sheet
5½" o.d
6⅝" o.d
3" o.d
16" o.d ⅜" thick
24" x 24" x 2" thick base plate with 1" thick fin stiffeners
1¼" diam holes
expanded metal boxes





Above: Typical eighth scale detail through column and truss. Below: Side Wall Detail. Right, top: A view of the roof interior. Centre: A column during construction; note the half-round shelf in position to support the next prefabricated lateral beam in position before welding. This procedure was responsible for a great saving of time during erection. Bottom: Column head during prefabrication on the site.


6'-0" deck sheet
8"x4" pressed steel box gutter
4½" o.d
3½" o.d side rail supporting eaves gutter
3½" o.d eaves bracing boom
7'-0" sheet
3⅝" o.d ⅜" thick
3'-9" brick wall
No.4 1½" diam holes
16"x 16"x 1½" thick base plate with ¼" thick fin stiffeners
No.4 ⅞" diam bolts 18" long

130,000 sq ft with an additional bay for the receipt of incoming materials 60ft wide × 185ft long to provide 11,000 sq ft..

Also required were large areas of floor space unobstructed by internal columns and that the roof structure should be capable of carrying conveyors and welding plant. The other essential requirements were a good intensity of daylight throughout the shop and that it should be heated to a temperature of 55 deg. F.

The main shop is 360ft square × 17ft high to eaves, consisting of six intermediate bays, 40ft span, and two outside bays, 60ft span, one of which is extended to form the receiving bay.

The 40ft span roof trusses are of the butterfly type glazed on both slopes while the two 60ft span outer bays have flat pitched trusses with glazing at the apex. The roof trusses are carried by latticed girders 120ft span with columns at 120ft × 60ft or 40ft centres according to the width of the bays.

The roof is covered with Brigg's aluminium decking with insulation board and two layers of felt and the sides of the building are clad with asbestos protected metal sheeting.

The superstructure is entirely of welded tubular construction except for the glazing purlins which are rolled angle sections. All joints throughout the structure are welded, the only bolts used being those for anchoring the columns to the foundations. An unusual feature of the structure is that the individual tubes were delivered to the site in approximate lengths and the whole of the fabrication, including shaping and welding of the tubes, was carried out on the site. It is believed that this is the first occasion on which a tubular building structure has ever been fabricated in this way.

The total weight of steel used in the finished structure was 415 tons, equivalent to 6½lb of steel per sq ft of floor area. This weight is estimated to be 40 per cent less than a similar design using riveted or bolted rolled steel sections. The low steel content of the structure is emphasized by the fact that the allowance for loads carried by the roof structure to provide for conveyors and plant was equivalent to a load of 20lb per sq ft of floor area, or an increase of nearly 100 per cent over the normal dead and live load requirements.

The weight of the main tubular columns which are 16in diameter is approximately 1 ton each; the 120ft span lattice girders weigh 6½ tons each; the 40ft and 60ft span trusses weigh 8cwt and 12cwt respectively. The individual lattice girders and roof trusses were fabricated on stillages and the whole of the structure erected by means of two mobile cranes. The whole of the work, including fabrication on site, erection and final welding up of the structure was carried out in a period of 4½ months.

SHOPS AND HOUSING, SEDGLEY, STAFFORDSHIRE

Architects: LAVENDER, TWENTYMAN AND PERCY

SHOPS AND MAISONNETTES, LOWER GORNAL, FOR SEDGLEY U.D.C.

BUILT to serve the needs of a new housing area, accommodation is provided for six shops facing south on to a main road with an access road at the rear to serve for delivery of goods. Owing to the steeply sloping ground the rear yards of the shops were sunk below road level, and it was therefore possible to enter the six maisonnettes above from this side with a short flight of external steps to each house.

The planning of the top floor of the maisonnettes with only bathrooms and staircases on the north side made a low eaves possible, and a " one-way " pitched roof was quite economical. The roof is constructed of wood-wool slabs on timber joists covered with green mineral felt.

The ground floor has steel stanchions and beams and a pre-cast concrete floor over with 11in. cavity weight carrying brickwork above. The upper floor is timber.

External finishes are facing brickwork with metal windows in cast stone surrounds.

The ground floor colonnade has its stanchion clad in cast stone and glazed tiles. The shops fronts have reeded hardwood fascias and bronze frames. The circular metal discs high up on the south side conceal ventilators to the top floor rooms.

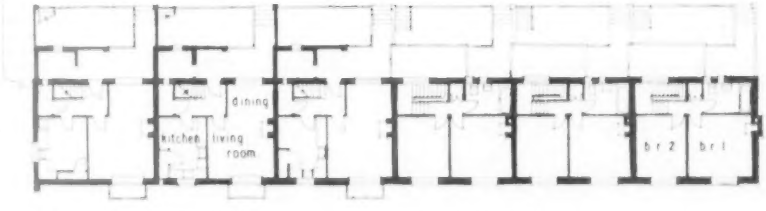
General Contractors:
Tomlinson Brothers, Sedgley.

Bricks: Aldridge Brick & Tile Co. *Ironmongery:* Lockerbie & Wilkinson. *Metal Windows and Ironwork:* James Gibbons, Ltd. *Structural Steel:* Banister Walton, Ltd. *Shop Fitting:* A. Edmonds & Co. *Stonework:* Tarmac, Ltd. *Wood-wool Slabs and Felt Roofing:* F. McNeil & Co., Ltd.

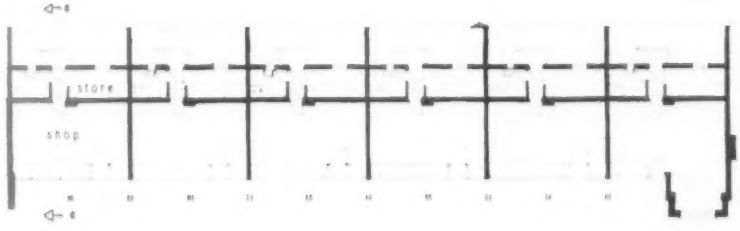
cross section a-a

The shops from South

n.w. elevation



half upper ground floor half first floor



ground floor

Shops and Housing, Sedgley, Staffordshire

From South-West

GROUND FLOOR FIRST FLOOR

SECTION

SIXTEEN FLATS, GIBBONS HILL FOR SEDGLEY U.D.C.

A DIFFICULT steeply sloping site made possible a part three-storey, part two-storey building.

The flats are intended for elderly people requiring only a single bedroom and one living room, but where the building is three-storey, the top floor is for young couples without children.

Three common entrance halls and staircases serve all flats.

Construction is 11in. cavity brickwork with timber upper floors and roof covered with dark brown concrete pantiles. Windows are standard metal in cast stone surrounds.

External walls are finished in a coffee coloured sprayed rendering.

General Contractors: Tomlinson Brothers

Bricks	Aldridge Brick & Tile Company
Ironmongery	Lockerbie & Wilkinson
Metal Windows	James Gibbons Ltd.
Iron Railings & Staircase Balustrades	W. Durose & Sons
Stonework	Tarmac Ltd.
Renderings	Stonite Ltd.
Roofing Tiles	Marley Tile Company

section through stair

SIXTEEN FLATS, ETTYMORE ROAD

ACCOMMODATION is provided for elderly people at the edge of a new housing estate adjacent to an existing shopping centre. There is a magnificent view to the west across a steeply falling hillside.

Staircases are shared between each pair of first floor flats, but the ground floor flats are all entered independently.

Construction is entirely traditional with walls of facing brickwork or sprayed rendering. Roof is of Roman tiles.

General Contractors: Asphalte & Public Works Ltd.

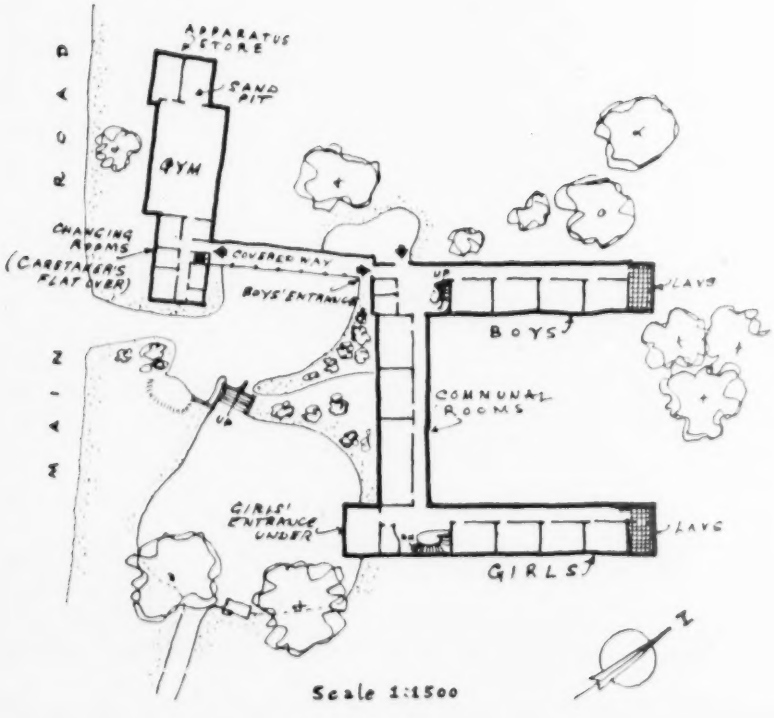
Bricks	Aldridge Brick & Tile Company
Ironmongery	Lockerbie & Wilkinson
Rendering	Tyrolean rendering
Roman tiles	Colthurst Symons Ltd.
Windows	J. Thompson Beacon Windows Ltd.
Stonework	Tarmac Ltd.

ground floor first floor

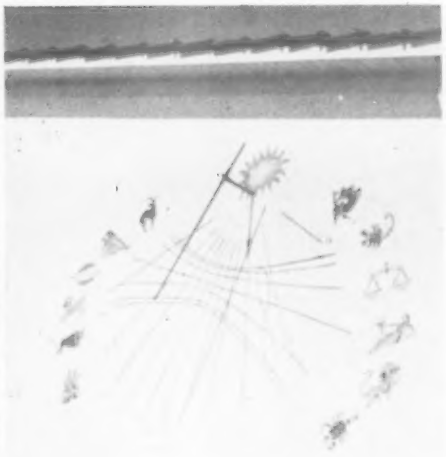
View looking up the steps linking the girls' play area with the boys'. Beyond can be seen the caretaker's flat above the changing rooms for the gymnasium.

Trembley Park School, Geneva

ARCHITECT:



THIS infants school was completed in early 1950 and is situated in a park in the North-West of Geneva. There are many beautiful specimen trees, mainly oaks and cedars, in the park and the arrangement of the blocks of the building was to some extent governed by these. The site selected slopes quite steeply from West to East. It was decided that the boys' and girls' classrooms should be separate but otherwise dining rooms, library, lecture room, etc., should be shared. By taking advantage of the sloping site the building has been so planned that the ground floor of the boys two-storey classroom block is level with the first floor of the girls. The communal rooms which are also used in the evenings form a link between the two. There are eight classrooms for both boys and girls and each is designed for 25 pupils. The



Above: A detail of the decorative sundial on the wall of the caretaker's flat. This was designed and executed by Albert Chavaz. The signs of the Zodiac are coloured mosaic.

Top, R.: The side elevation of the Gymnasium; the covered way linking it to the main school can be seen on the extreme left of the photograph. The roof is covered with dark brown pantiles, walls are white stucco, windows are double glazed armourplate glass, in hardwood frames.

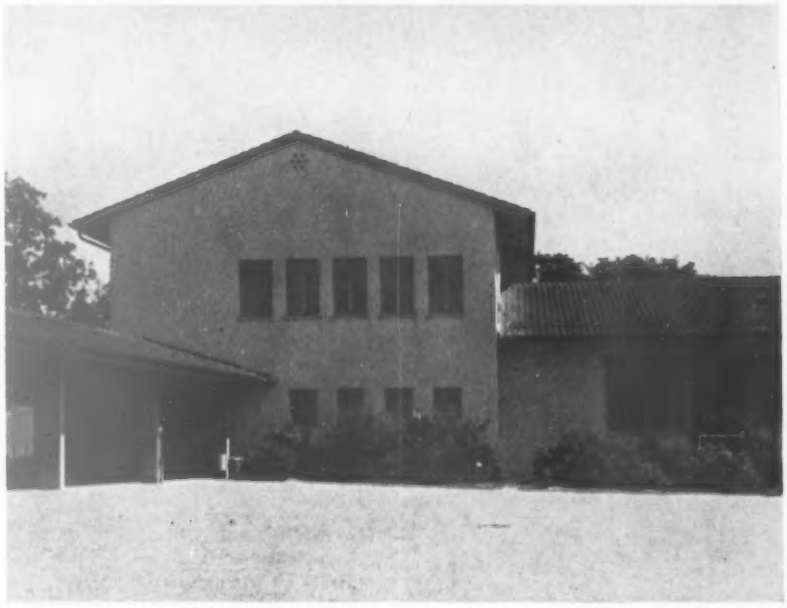
Middle, R.: The boys' entrance and covered way. The larger windows on the right of the picture are to the lecture room. This room has tiered seats and is used for showing films and lantern slides.

DR. ROLAND ROHN

entrance halls and classroom corridors are extremely spacious and the wide staircases are beautifully detailed. The gymnasium block is connected to the main building by a covered way, open to the South-East and protected to the North-West by a glazed screen. The gym has double glazed armourplate windows each side carried down to a few feet from the floor. This gives a very light and airy feeling and we were told that so far there had not been any breakages of windows. At the end of the gym is a room, some 20ft square, with a sand pit as the floor. Above it are suspended all manner of crossbars, etc., for jumping and vaulting. When not required, a sliding metal screen can be lowered. Above the changing rooms to the gym is the caretaker's flat.

NORMAN WESTWOOD

Bottom, R.: View from the girls' play area showing the entrance and the communal block linking the boys' and girls'.

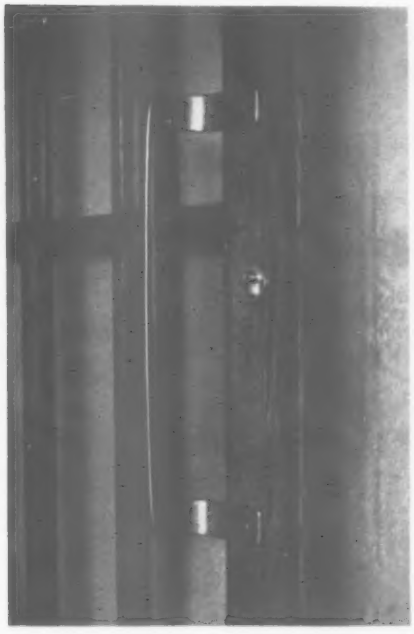


Details of the staircase in the girls' entrance hall.
The mural painting is by Albert Chavaz.

TREMBLEY PARK SCHOOL, GENEVA

Below, L : View in the boys' entrance hall showing the spacious stair and corridor leading to their classrooms. The floor is paved with terra cotta red tiles, the treads and risers are granite, the balustrade is wrought iron and drawn aluminium with a hardwood handrail. Note the way in which the thickness of the floor slab has been reduced around the well.

Below, R : A charming little fountain in the boys' play area. The bowl is marble and the bronze penguins are by Willy Vuilleumier.



***Top, L :** A typical external door handle consisting of an anodized aluminium core faced each side with polished hardwood.*

***Bottom, L :** Detail of anodized aluminium umbrella rack in corridor.*

***Top, R :** One of the seats in the covered way. The supports are granite left with a rough face. The varnished oak slatted seat is supported on galvanized iron cross-bearers.*

***Bottom R :** Owing to the natural slope of the ground some parts of the play area had to be considerably raised. In order to preserve the trees, pits were left around them and covered with special gratings. Note the use of random paving to form a pleasant link between the grating and the playground.*

Photographs by Norman Westwood.

Some Problems of Plastering and Rendering

BY E. L. WESTBROOK

The author, who has lectured on this subject in the M.o.W. winter lectures, is Building Research Officer, George Wimpey & Co. Ltd.

THERE would still appear to be a tendency on the part of those responsible for drawing up specifications to dismiss both rendering and plastering in general terms, without thought of the backgrounds which are to be covered and without some knowledge of local materials and practices. Yet these considerations are of importance in avoiding certain of the troubles experienced, such as crazing, hollowness, shelling of finishes from backgrounds, softness, etc.

Architects frequently appear to expect renderings to resist conditions for which they are not suitable, as for example in covering garden walls constructed in common bricks. Many bricks contain the soluble sulphates, such as Epsom or Glauber Salts, which react with cement under damp conditions and produce calcium-sulpho-aluminate. This occupies a larger volume than the original, is soft and powdery, and results in crazing, breakdown and falling away of the rendering. For such conditions of exposure it would be wiser to try to avoid bricks known to contain sulphates, to prevent the entry of water by properly placed D.P.C.s and flashings, or better still to use facing bricks and no renderings. A rendering, however dense, will not provide a permanent D.P.C. for exposed horizontal surfaces.

Figure 1 shows a corner of a street, typical of many, where most visible surfaces have been rendered. Some of these surfaces have top protection for the rendering, but the boundary wall shows the effects of salt and frost action arising from reliance on the weatherproof properties of the rendering at the top and the lack of D.P.C. at the bottom.

Fig. 1. Rendering applied to various surfaces.

Rendering and Plastering Materials

Some knowledge of the properties of the rendering and plastering materials and of their mixtures is very necessary in drawing up specifications. The Ministry of Works, in their series of Advisory Leaflets, the Building Research Station in certain of the National Building Studies, and the British Standard Codes of Practice have done much to clear the confusion of thought which has existed and which may be said still to exist, regarding these properties.

The materials in use are lime, cement and sand externally, together with "hardwall" or gypsum plasters for internal use only, and they are mostly covered by the appropriate British Standards.

Limes

Lime may be regarded as the traditional material for this country, and its properties will vary according to the locality from which the limestone for burning is obtained. Quicklimes from the almost pure calcium carbonate limestones found in Derbyshire and the southern counties need only simply slaking and a sufficient soaking time for use. Hydrated limes from these same sources can be used directly from the bag, although it is preferable to soak them at least overnight.

When, however, a limestone is not pure calcium carbonate special care in slaking is required. Greystone, for example, containing clayey material, or Dolomite found in areas roughly from Durham to the Midlands, give rise to hydraulic limes or magnesian limes respectively, and these both require their own special treatment.

Figure 2 depicts a panel illustrating the defect of "popping" and "pitting" arising from unsoundness in lime.

The lime had been supplied as hydrated lime and theoretically could have been used directly from the bag. Generally in testing such materials unsoundness is shown in the failure to meet the fineness requirements of B.S.S. 890, but this material passed these tests satisfactorily. The British Standard test by steaming for detecting unsoundness would not appear infallible. More consistent results have been obtained by preparing panels 12in × 12in square as illustrated, placing four together face inward in the form of a box and steaming for some hours (Figure 3). The panels are dried out overnight by heating and the cycle of steaming and drying repeated several times if necessary.

Fig. 2. Small portion of 12in x 12in square panel, showing "popping" and "pitting."

Pure limes stiffen merely by drying out and hydraulic limes show the property of setting under water and achieve a fairly high strength. Time has a hardening effect on lime plaster due to the conversion back to calcium carbonate by the slow reaction with atmospheric carbon dioxide. The simple chemistry of the process has been illustrated in chart form in the British Standard Code of Practice, "Internal Plastering" C.P.211 (1949). Hydraulic limes were widely used as "Roman Cement" together with sand for the stucco fronts popular from the Regency period to the early years of the century, and most of our bigger towns have examples of this work, but it should be noted that usually preservation has been assisted by continuous paint-

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ing. A recent Digest from the Building Research Station (No. 46, September, 1952) summarizes the properties of limes and the slaking processes far more adequately than is intended here, and reference might also be made to an earlier one of the same series No. 26 (January, 1951) "Blowing, Popping, or Pitting of Internal Plaster."

Cement

Portland cement, the more recent material, is a controlled product of burning limestone and clay, sets under water, and achieves a high strength. To say more here would be valueless as there are many publications describing the manufacture and properties of this material.

Sands

Although it can be said that external renderings are composed generally of lime, cement and sand, it would be very unwise to dismiss the latter so cursorily, as it can so often be the cause of trouble arising after application. Being relatively cheap and not economical to transport over long distances, its quality is only too often ignored. The comment that such-and-such a building sand is the best obtainable locally and has been used with success by generations of plasterers is frequent. Often it proves to be extremely fine and dirty, and its popularity arises from the workability given it by the clay, and its consequent cheapness in that less cement or lime need be added. There are British Standards for sands, and a nest of sieves will assist in rejecting the more unsuitable ones, but it must be noted that there is a distinction between rendering and plastering sands. The table shows the grading of these sands, and the finer ones specified as plastering sands are best retained only for lime and gypsum plaster mixes. Where one of the chief constituents is Portland cement, the rendering sand specification is preferable both for internal and external work.

BRITISH STANDARD SAND GRADINGS

Reproduced from B.S. 882, 1198, 1199, 1200 and 1201 : 1944) by permission of the British Standards Institution

Percentage Passing B.S. Sieve	B.S. 1198 Plastering				B.S. 1199 Rendering	
	Undercoats		Finishing			
	Class A	Class B	Class A	Class B	Class A	Class B
3/16in.	—	—	—	—	100	100
7	98–100	98–100	100	100	90–100	90–100
14	80–95	80–100	95–100	95–100	70–100	70–100
25	30–85	30–95	30–85	30–95	40–85	40–95
52	5–50	5–65	5–50	5–65	5–50	10–65
100	0–10	0–15	0–10	0–15	0–10	0–15

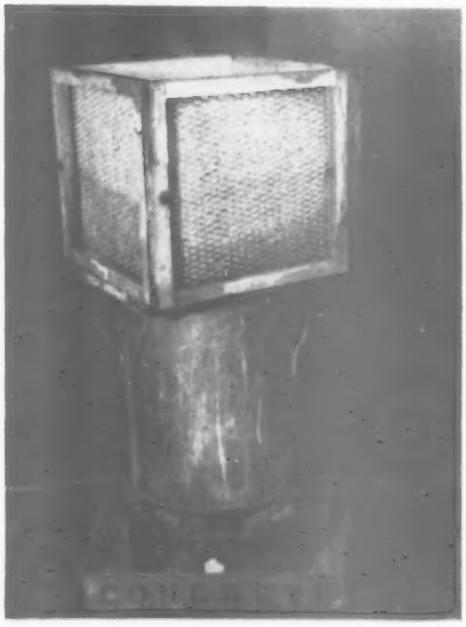

Fig 3. Panels on steamer.

Gypsum Plasters

For internal plastering there is an additional material, hardwall or gypsum plaster. The term "hardwall" is not encouraged in the gypsum industry, and it can be a misnomer in that obviously sand : cement or even sand : lime, plaster gauged, mixes can give as hard a surface as gypsum plasters.

Gypsum, the basic material, when heated, loses water, and if the heating temperature is limited, about one quarter of the water is retained. The product at this stage, plaster of Paris, Class A, gives a fast set when mixed with water and commercially the plasters known as retarded hemihydrate plasters, Class B, contain a retarder designed to reduce this speed of set to a workable one. These retarders prolong the time before setting commences, but once it occurs it is still rapid. If gypsum is heated more strongly, the whole of the water in its composition is lost and anhydrous gypsum obtained. This material sets too slowly for convenience and accelerators, usually salts such as alum, are added. The accelerated anhydrous gypsum plasters Class C and D set progressively, and more time is available for obtaining a polished finish. Finally, there is a naturally occurring material, anhydrite, which ground and accelerated produces gypsum plaster Class E. A chart illustrating the composition of gypsum plasters is shown on page 58 of the British Standard Code of Practice for Internal Plastering, C.P. 211(1949). It is now general practice for plaster bags to be marked with the Class Letter, and a list of proprietary names and their classes is given in Ministry of Works Advisory Leaflet No. 2, "Plasters used in Building."

Specification in Practice

In criticizing the drawing up of specifications, one also wonders whether anyone reads the original after the first pricing. For example, in one instance when checking on the mix proportions specified as 1 : 1 : 6 by volume cement : lime : sand, mixing and spreading were found to be happily proceeding with one bag of cement, say nine shovels to the bag, 11 shovels of sand with an odd shovel of lime. This, admittedly, is unusual, and it is much more likely that mixes used are weaker than specified. Cement is an expensive item!

It is not always appreciated that the volume of sand can change appreciably with the amount of water present. For example, some sands show between a quarter and a third volume increase over the dry volume for a 7-10 per cent increase in moisture content, and this is allowed for in designing volume-batched concrete mixes. No account of this fact is taken in site rendering or plastering mixes, and there is much to recommend weigh-batching to ensure regularity of mixing. In the absence at present of simple means to that end on small jobs, the use of mixes already prepared in factories has much to commend it, provided that clear statements of proportions are given by these suppliers.

Care has to be taken in clearness of specification in some parts of the British Isles. For example, in Scotland a 1 : 1 : 6 by volume cement : lime : sand mix is likely to be interpreted on the site as one bag of cement, one bag of lime, and six barrows of sand. Admittedly a bag of cement may be a level filling for some barrows, but striking off the sand surface is unusual. Sometimes the size of mixing batches is horrifying. The author came across one mix being prepared with 3 cwt of cement, one bag of lime, and nine barrows of sand. This was turned by hand by two labourers and was being applied by one spreader on to the gable wall of a block of flats. The area being covered was roughly 700 sq ft, and when all was applied, dashing with pebbles started. There was little wonder that the plasterer liked a good clayey sand to keep the mix "open" for all-day application, or for that matter that the whole showed crazing on the following day. Needless to say, it is not advisable to make up large batches of any of the materials of rendering or plastering. Retempering, too, of partially set material only results in weakening the mix.

Application Techniques

In this country external renderings based on Portland cement and sand, usually of the order of 1 : 3 by volume,

applied and finished with a steel float, had been so subject to crazing and cracking that a few years before the last World War, Mr. F. L. Brady, who was then an officer of the Building Research Station, made, with Mr. L. F. Denaro, a survey of the technique of application of external renderings as practised on the Continent. Their findings were embodied in a Building Research Station Bulletin issued by the Stationery Office, and may be very briefly summarized as showing a variation from the existing British practice in the greater use of lime with cement in external work, the use of throwing techniques, the avoidance of smooth finishes, the use of crushed stone sands and greater care in designing and making flashings. Following adoption of some of these recommendations, mixes of the order of one part cement, one part lime and six parts of sand by volume are now more widely specified and used for external and internal work.

It must be said that there appears to be more chance of success since mixes containing lime have been adopted, but complete immunity from trouble is still not certain. Again, in some parts of the country plasterers appear to be taught never to mix cement and lime together. To them it is difficult to explain the reduction of the incidence of crazing. Both cement and lime mixes shrink on drying, and drying shrinkage can cause crazing. Perhaps the lime makes the material more flexible in its early drying and probably provides a better overall adhesion. In any case, the lime addition does mean a more absorbent surface, so that rain does not run down and into cracks to be trapped by the impervious surface of a strong cement : sand rendering. Also, as the water is held near the surface drying can occur more rapidly after rain.

Machine Application

Following the war, much use has been made of machine-thrown or gun-applied materials as decorative finishes. The point must be stressed that one or two applications of these materials can only be described as primarily decorative. To provide the full protection of a "laid on" coat a number of applications to build up an appreciable thickness are required. Unfortunately, these finishes have been applied too frequently in industrial areas and during bad weather, with the result that their appearance has suffered. Dirt retention is high on the rough surface, and application during damp weather has resulted in "blooming." The latter effect can be due to the solubility of lime, either from the background or from the finish, which is deposited on the surface as the carbonate or calcite. The only solution to that problem is to try and apply these finishes under reasonable weather conditions. Another fault in application often seen is the tendency to apply a coat too heavily, with running together of the material. The spattering of the surface to achieve the desirable open regularity can be controlled with care by the operative in continually adjusting his distance from the wall face.

One of the most useful applications of Brady's observations has been the "spatterdash" treatment to provide a key for subsequent rendering coats. Where a number of different backgrounds are adjacent to one another, and particularly where smooth concrete occurs amongst them, a dash of coarse sand and cement in the proportions of 1 : 2 to 1 : 3 by volume provides good adhesion for later coats. It is very necessary to dampen the surface before this application, and a further dashing of water on the following day will prevent softness.

When throwing from a trowel has proved a little difficult to master by a plasterer, reasonably successful results have been achieved using the Tyrolean-type machine or a brush.

Scraped Finishes

Architecturally the appearance of scraped finishes is preferable to the patchiness produced by floating to a smooth surface. At present the best results are obtained by ready-bagged mixes which are consistent in proportioning and therefore materially assist the plasterer in avoiding the difficulties of accurate site proportioning and irregularities in colour. There is still no absolute guarantee that such finishes will not craze, but the removal of the dense cement surface does help to minimize the risk.

Fig. 4. Failure of strong finish on weak backing affected by frost.

Modification of Specifications

A difficult point is the degree to which it is safe to include lime in external work. Brady noted a case of a mix of 1 : 10 : 33 by volume cement : lime : sand in Hamburg, but there has been adverse comment on the use of 1 : 2 : 9 by volume cement : lime : sand mixes, particularly in exposed positions in the North. Figure 4 shows a breakdown of such a mix as a backing coat to a machine-thrown finish. It is not clear that such a backing would have successfully withstood the conditions of exposure alone when not covered by the less permeable finish, but it would generally be advisable to avoid increasing beyond the previously mentioned 1 : 1 : 6 proportions.

Generally, when the quality of sands is doubtful, it is not practicable to be too rigid in proportioning. A harsh sand may need a slight decrease in quantity and a 1 : 1 : 5 by volume cement : lime : sand mix would be most easily applied. Similarly, a soft, loamy sand would be better used in slightly bigger proportion, say, 1 : 1 : 7, as above, to offset the greater crazing and shrinkage risk due to the quantity of finer materials.

Waterproofers and Wetting Agents

The value of waterproofers in rendering mixes still appears uncertain, and it cannot be taken that there is no value at all in such additions, as is so often said when considering good-quality concrete mixes. For one thing, although a good wetting-down of the backing in strong drying weather is the best means to ensure adhesion of a finish coat, it is possible to go too far or to follow up too soon, and get slipping, especially if the base has little suction. The use of waterproof cement or addition of waterproofer, a more awkward matter for control, can sometimes assist in reducing an excessive suction to reasonable proportions.

The use of wetting agents to assist in plasticizing mixes or even in elimination of the lime content is appearing.

Experimental work is at present being conducted by the Building Research Station on the possibilities of such additions. In fact, when wetting agents are added, it is possible to apply mixes as lean as one part cement to six-nine parts harsh sand by volume. Care must still be exercised in adopting the idea, as obviously mixes composed of one part cement to eight parts sand will have low strengths. With these mixes the additional increase in strength with age produced by carbonation of the lime could not occur, and the weatherproofing properties are as yet not defined.

Internal Plastering

Failures.—Large-scale crazing internally usually follows from unsuitable mixes and poor sand gradings. The finer skin-deep map crazing seen mostly on gypsum plasters or on plaster-gauged lime mixes, fortunately easily obscured by decoration, often results from over-trowelling too late after application or, by its more frequent occurrence on window reveals or near doorways, when drying conditions are too acute. There is always a risk of obscuring the actual set of

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gauging plaster when large areas are laid on and final trowelling is delayed.

Crazing followed by shelling of the finish coat is not uncommon, and can be the result of applying finishes too strong for the background. In some cases the high suction of the weaker backgrounds, and not only lack of strength, can cause trouble. For example, a heavy coating of 1 : 2 : 9 cement : lime : sand on expanded metal, followed by a skim coat of a Class C plaster, is inadvisable. The high suction of such a backing results in loss of water, leaving insufficient for hydration of the skim and, as mentioned earlier, such plasters set slowly. Subsequent decoration and condensation during occupation supply water which recommences the setting, and the phenomenon of delayed expansion can occur, with resultant cracking, hollowness and shelling of the plaster coat. For this kind of work, in view of the need for early strength, particularly if such construction is overhead, it is probably advisable to use Class B plaster sand backings and finish with the same mix or neat Class B plaster.

Incidentally, this is also probably the safest type of specification where local sands are of poor rendering quality and where it may be necessary to cover a number of different internal materials. Offsetting the cost are the advantages of small risk of loss of adhesion, and the finishing coat can follow on once the backing has set and has not dried out.

With such plasters there have been reports of serious corrosion of expanded metal. Fig. 6 shows rust staining through neat gypsum plaster and the decreased risk obtained with a small lime addition.

Concrete Surfaces.—Concrete faces internally can cause difficulties. Many specifications still include sand or cement : lime : sand backing coats on hacked concrete, and particularly when overhead are not often successful. Concrete bonding plasters have been devised for which non-shrinkage properties are claimed, and are effective providing the maker's instructions are adhered to. Generally, Class B plasters used neat also give satisfactory results. The overall thickness of the work must be kept to a minimum in both cases.

Gypsum plaster, whether of the concrete bonding type or otherwise, must not be used as a key for external work. Such an error was a recent incident where the plasterer applied concrete bonding plaster to a concrete balcony canopy, and then rendered in cement : lime : sand. The latter fell with almost fatal results to those below. This was another case of the incompatibility of sulphates and cement compositions.

Plaster Additions

Incidentally, there is another practice very much to be deplored which some plasterers still adopt with external work. This is the addition of a handful or so of gypsum plaster to cement rendering mixes to speed the set of the cement. A small amount of gypsum is added during the manufacture of cement to adjust the setting time, but large uncontrolled additions are fatal. It may be convenient when dubbing out or making good to be able to complete the job in one operation, but in a year or two the whole work needs renewal with the additional difficulty of removal of the sulphate and the ugliness of patching.

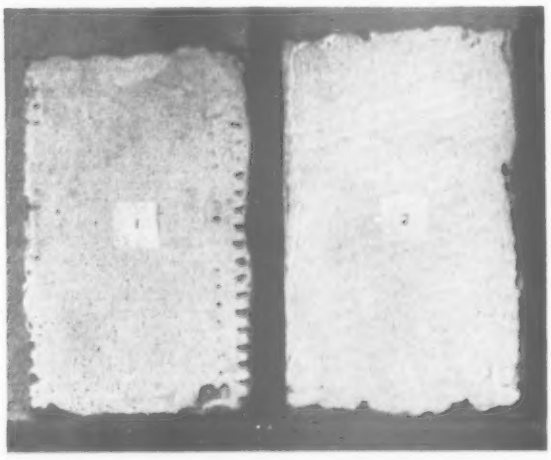

Fig. 5. Rust stains from expanded metal: (1) Neat Class B plaster. (2) Class B plaster and lime addition.

General Defects Causing Difficulties

In being critical of the malpractices of plasterers rather than of their materials, it must be said that there are many faults for which they cannot be blamed. A common cause of cracking, for example, on partition walls, arises from the use of breeze blocks improperly cured or which have become wet in storage on the site or have been soaked before use. Cracks following block outlines result from such variation from block to block, whereas a crack at ceiling level usually results from moisture movement of the panel as a unit.

Efflorescence arises generally from the presence of salts in brick or block backgrounds, but it can result from the use of estuary or sea sands. In some parts of the country it is difficult to find alternatives, and the risk must be minimized by frequent checking on the salt content of such supplies. The difficulty then is to assess the safe maximum allowable, as obviously conditions will have a big effect. There are known cases where trouble has been serious with percentages of the order of 0.1 per cent by weight. This percentage could amount to, say, a couple of pounds of salt distributed round the walls of a large room.

Paint and distemper failures, again, are most frequently the result of lack of appreciation of the limitations of these materials by either designer or painter, and lack of adequate drying time of the plaster.

This account has perforce been limited, and one notable and obvious omission is that the many problems directly associated with lime plastering have not been discussed, though its use must not be regarded as discredited. The aim has been to consider mostly those materials considered as speedy for house finishing. For all this desire for speed, it would be very pleasant to see some return to the use of the plasterer's finer skill in obtaining decorative and attractive effects, internally and externally, common enough in past generations, but so often neglected to-day and left to the decorating trade.

(The photos illustrating this article are the copyright of George Wimpey & Co., Ltd.)

I.A.A.S. FORTHCOMING EXAMINATIONS

THE Incorporated Association of Architects and Surveyors will hold the following examinations during the week beginning May 3, 1954.

Architects' Section: Intermediate grade; final grade (Parts I and II).

Quantity Surveyors' Section: Intermediate grade; final grade (Parts I and II); direct final grade.

Building Surveyors' Section (Municipal and Non-Municipal): Intermediate grade; final grade (Parts I and II); direct final grade.

Land Surveyors' Section: Intermediate grade; final grade; direct final grade.

Fire Surveyors' Section: Direct Associate grade (Parts I and II).

The examinations will be held in London and at selected provincial centres. Applications from candidates for permission to sit, made on the prescribed form, must be received not later than Monday, February 8, 1954.

Full information on application to the General Secretary, I.A.A.S., 75, Eaton Place, S.W.1.

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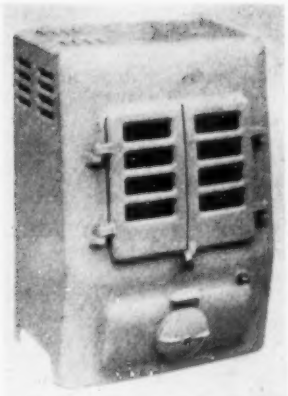


SERVICES

SPACE HEATING

B3/44

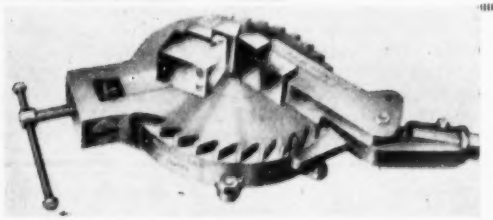
The 6 R. Courtier stove, by Mitchell, Russell & Co. Ltd., Chattan Foundry, Bonnybridge, Scotland, has been recently designed and is produced in eight colours; the price varies according to colour from £15 17s 6d plus £1 10s for a stand 3in high, to £18 17s 6d plus £2 2s. The heating capacity is 3,500 cu. ft. and the size is 23½in x 17in wide x 12½in from front to back; the fire is designed to burn with the doors open or closed, considerable control and economy of fuel is possible by means of the adjustable vent in the ashdoor.

FITTINGS

ELECTRIC COOKER

C1/13

A new type of electric cooker, the English Electric Automatic, Model 2011. A cabinet type, with cast iron frame and steel panels, fitted with automatic timing devices, three cooking plates, grill chamber, oven and storage chamber. Cost £55. The splash-back contains the control panel, 13-amp shuttered outlet and 6-watt fluorescent light. The control panel consists of an automatic oven timer that will switch on and off at preselected times, an audible timer that can be set for up to 4 hours duration and a pilot light that indicates the use of one or more hot plates. English Electric Co. Ltd., Queens House, Kingsway, W.C.2.



PLANT

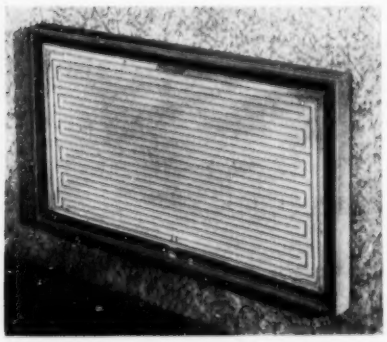
HAND TOOLS

E3/30

F. J. Edwards Ltd., 359-361 Euston Road, London, N.W.1, are probably best known for their "Besco" range of sheet metal working machinery, the majority of which consists of fairly large production machines such as presses, guillotines, press brakes, folders and bending rollers.

Nevertheless, they have always specialized in a wide variety of smaller machines, such as the "Besco" No. 2 Bar Bender. This new machine has been designed as a jack-of-all-work, being capable of quite heavy operations on hot or cold mild steel flat bars, rounds, squares, notched angle and other sections. Interchangeable steel bending blocks are available for normal 90 deg bends in angle and other sections, radius bending, acute bends, and bending of round bars.

The handle operates through a ratchet and pawl mechanism which can be disengaged when working in the lighter gauges. Top capacities are: flat bars 4in x 5/16in cold, 4in x ⅜in hot; squares ⅜in cold, 1¼in hot; notched angle 4in x 5/16in or equal cold, 4in x ¼in or equal hot.



SERVICES

SPACE HEATING

B3/45

E. K. Cole Ltd., Southend-on-Sea, Essex, have recently introduced the "Thermo-panel" radiant heater that has its heating element fused to the back of a glass panel. Designed for wall mounting, it is made of Armourplate glass which has a patterned mirror finish made by the heating element. Two loadings are supplied, with or without a frame, price varies from £10 1s 4d for the 750-watt model without a frame to £15 9s 9d for the 1,000-watt model with frame. Guards are supplied at 10 and 12 shillings each, for the larger or smaller size, to prevent surface contact by children.

INDUSTRIAL NOTES

● On and from January 1, 1954, G.W.B. Electric Furnaces, Ltd., will be known as G.W.B. Furnaces, Ltd.

The policy and administration of the company and addresses of the company's registered offices, works and branch offices will remain unaltered. The company is still a separate entity, wholly owned by the proprietors, Messrs. Gibbons Brothers, Ltd., of Dudley, and Wild-Barfield Electric Furnaces, Ltd., of Watford.

The products of the company now include electric resistance, arc and induction furnaces; steam raisers and water boilers heated by oil, gas and electricity; electric control gear and case-hardening compounds.

● Mr. George W. P. Page, A.C.G.I., A.M.I.E.E., is retiring at the end of the year from the staff of the Publicity Department, The British Thomson-Houston Co., Ltd., Rugby.

● H. L. Reynolds, Ltd., structural and sheet metal engineers, of Leeds, have just introduced lengths up to 12ft long of their pressed steel rainwater gutters and pipes. This not only enables them to reduce their own prices but will also mean that builders can save costs on erection, labour and jointing materials.

They have also just introduced an entirely new range of electro galvanized half-round gutters and fittings comprising gutters in lengths of 2ft, 3ft, 4ft and 6ft, square and obtuse angles, outlets and stopends.

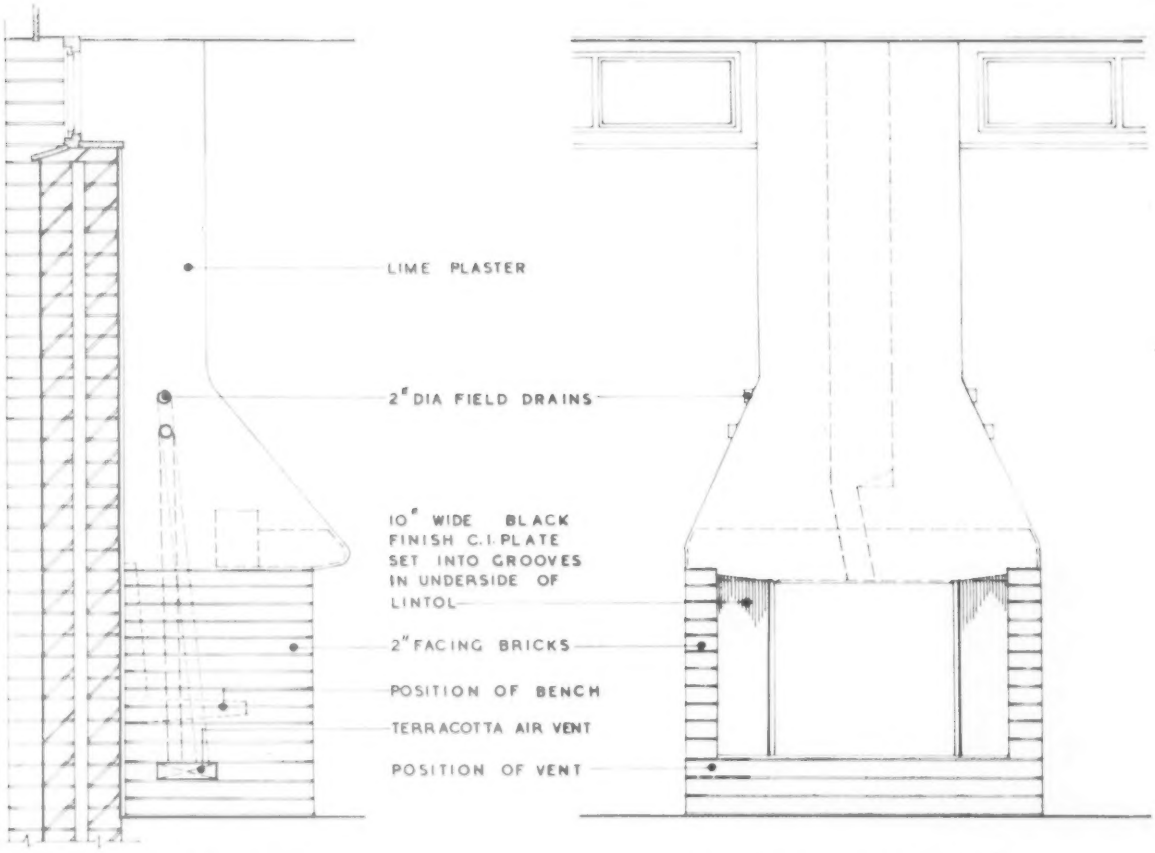
● Messrs. Chamberlain Industries, Ltd., of Staffa Works, Staffa Road, Leyton, E.10, have appointed Messrs. Electricals, Ltd., 14, Claremont Place, Newcastle-upon-Tyne, 2, as their main distributors and stockists for the well-known range of "Staffa" products, which covers tube-bending machinery, grinders and dust extractors, shop cranes and industrial hydraulic service kits.

Messrs. Electricals, Ltd., who are well known as power tool specialists in the north-east of England, will be pleased to handle enquiries and to arrange demonstrations at any time.

● Stramit Boards Limited announce that owing to a theft of brief case, all their records of visitors to their Stand at the recent Building Exhibition at Olympia on Tuesday, December 1, have been lost. Will those enquirers to whom Technical Folders were promised on that day, please write to the firm at Packet Boat Dock, Cowley Peachey, Uxbridge, Middx.?

● At "Hotelympia" (20-29 January) Rowe Bros. & Co., Ltd., of Birmingham, Bristol, Exeter, Liverpool and London, are showing on Stand No. 45/46 on the ground floor, several interesting items of machinery of their own manufacture, among which is the new "Regina" potato peeler, electrically driven and of 7 lb capacity. This should be of particular interest to the smaller caterer, while to those engaged in the food industry the S.A. Peckmix machine there is a general-purpose pulverizing machine, finished in stainless steel and having a very wide variety of uses.

One of the main features of the stand is an all-electric self-service counter produced by the exhibitors themselves, the particular type shown being one specially supplied to the requirements of the National Coal Board. In addition, there is a comprehensive display of tea-making apparatus and many smaller items of modern catering equipment.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2" DIA FIELD DRAINS
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2" FACING BRICKS
POSITION OF BENCH
TERRACOTTA AIR VENT
POSITION OF VENT

SIDE ELEVATION

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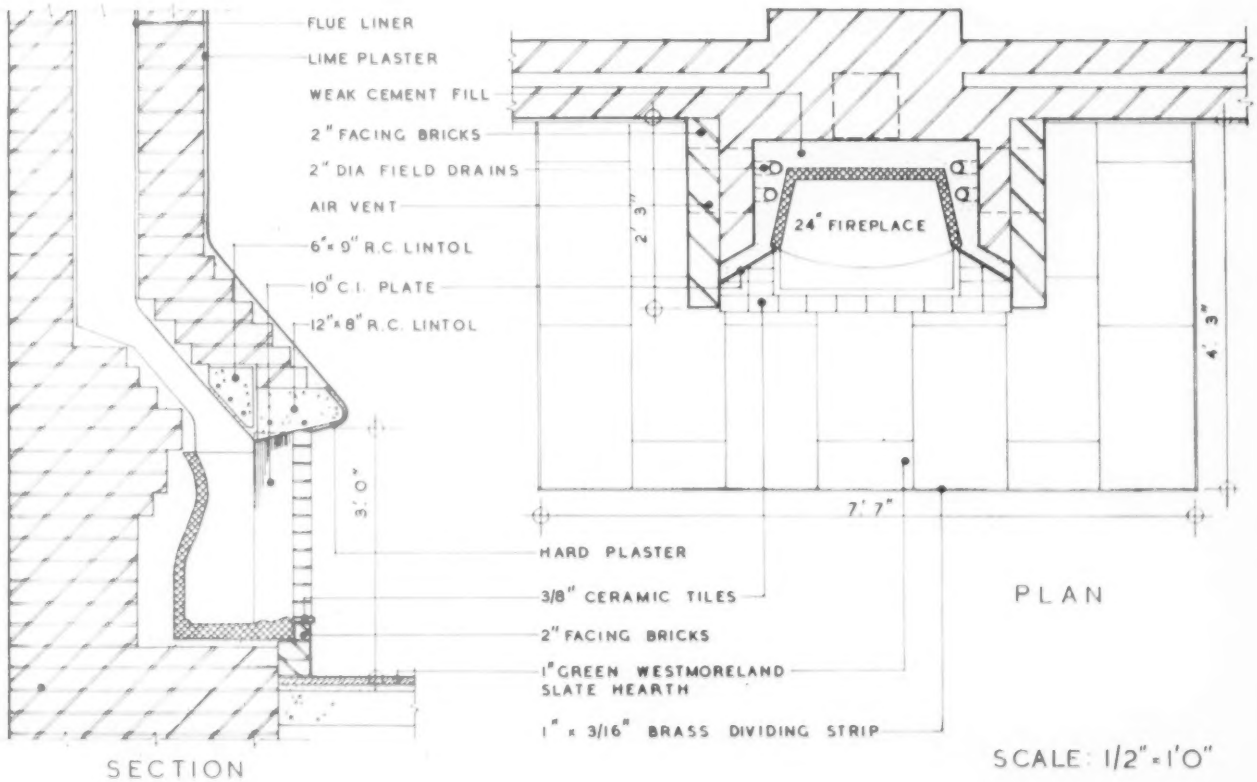
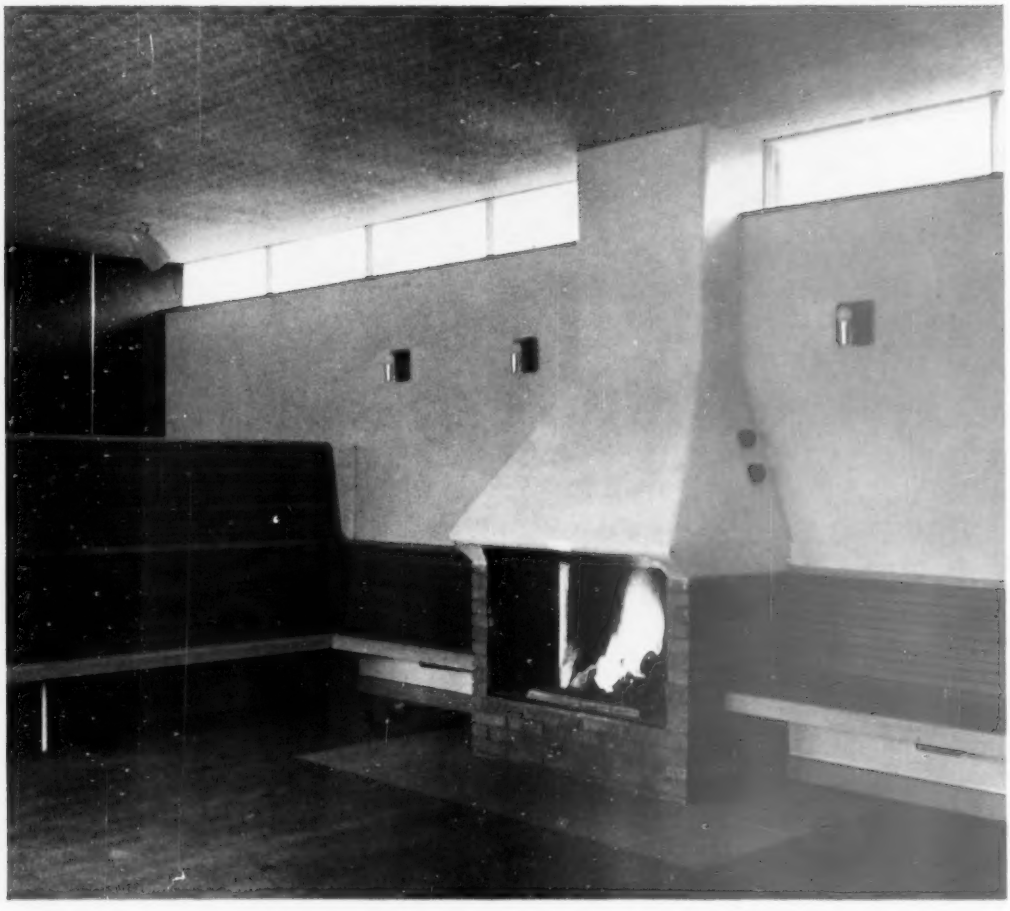


SECTION

PLAN

SCALE: 1/2" = 1'0"



FIREPLACE: PUBLIC HOUSE, STEVENAGE

ARCHITECT: CLIFFORD HOLLIDAY

Chinese silk was an astonishing material to the eyes of the Medieval western world. They marvelled at its softness and its amazing strength; they observed with delight the intricate needlework, strange patterns and subtle colouring of the Chinese robes that from time to time were brought by merchant adventurers to Europe. In the Victoria and Albert Museum is a superb example of such craftsmanship—a robe of Ch'ing Dynasty, designed for a Temple Image. The silk (damask) is decorated with mang dragons and the Twelve Symbols on a background of Almond Green—a colour which has been standardised by the British Colour Council and faithfully reproduced in this Vinyl decorative tile. Architects will find that the dual range of Semtex Vinyl and Semastic Decorative Tiles offers them the widest possible scope for colourful decorative schemes to satisfy both aesthetic and practical considerations.

One of the nineteen plain and tone-on-tone colours in the Vinyl Tile range

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Notes below give basic data of contracts open under locality and authority which are in bold type. References indicate : (a) type of work, (b) address for application. Where no town is stated in the address it is the same as the locality given in the heading, (c) deposit, (d) last date for application, (e) last date and time for submission of tenders. Full details of contracts marked ★ are given in the advertisement section.

CONTRACT • NEWS •

OPEN

BUILDING

BANSTEAD U.C. (a) 2 Civil Defence headquarters and machine room at Council house, Brighton Road. (b) Engineer and Surveyor, Council house, Brighton Road. (c) 2gns. (e) Jan. 9.

* * *

BERKSHIRE C.C. (a) Hutted kitchen and dining room at Shrivenham School. (b) County Architect, Wilton House, Parkside Road, Reading. (c) 2gns. (e) Jan. 7.

* * *

BEXHILL B.C. (a) Public conveniences, Devonshire Square. (b) Borough Engineer, Town Hall. (c) 2gns. (e) Dec. 28.

* * *

BOOTLE B.C. (a) 1 3-storey block of 8 shops and 9 maisonettes, Homestead Avenue, Copy Lane Estate. (b) Borough Surveyor, Town Hall. (c) 2gns. (e) Jan. 7.

* * *

BORDER R.C. (a) 71 houses, Madam Banks, Dalston. (b) Housing Officer, 3, Victoria Place, Carlisle. (c) 2gns. (d) Dec. 19.

* * *

BUCKS C.C. (a) Sanitary accommodation and drainage to Hollybush C. of E. School, Farnham Royal. (b) County Architect, County Offices, Walton Street, Aylesbury. (e) Dec. 28.

* * *

CARDIFF C.C. (a) New county primary and junior infants' school, Llanrumney. (b) R. L. Brewis, 11, Cathedral Road. (c) 2gns. (d) Dec. 21.

* * *

DORCHESTER B.C. (a) 40 houses, Poundbury Estate. (b) L. Magnus Austin, Bowling Alley Walk. (c) 2gns. (d) Dec. 19. (e) Jan. 14.

* * *

DUBLIN C.C. (a) 202 houses, 10 residential shops and estate office at section 4B, Ballyfermot Housing Area. (b) City Treasurer, Exchange Buildings, Lord Edward Street. (c) 15gns. (e) Jan. 6.

* * *

DURHAM C.C. (a) 2 pairs of police houses, Norfolk Road, Moorside Estate, Consett. (b) Police Architect, Court Lane. (e) Dec. 29.

* * *

ESHER U.C. (a) 10 garages, Golf Course Estate, West Molesey; 9 at Slough Farm Estate, Claygate; 11 at Winston Drive Estate, Stoke D'Abernon; 8 at Cranbrook Drive Estate, Esher. (b) Engineer and Surveyor, Council Offices. (c) 1gn. (e) Dec. 28.

* * *

ESSEX C.C. (a) Smallholder's house at Stonehall Farm, Beaumont Estate, Tendring, near Clacton-on-Sea. (b) County Land Agent, 69, Duke Street, Chelmsford. (e) Dec. 31.

* * *

ESSEX C.C. (a) House for fire officer, Hadleigh. (b) County Architect, County Hall, Chelmsford. (d) Dec. 19.

* * *

***GILLINGHAM B.C.** (a) 124 dwellings, Twydall/Beechings Estate. (b) Borough Engineer, Municipal Buildings. (c) 5gns, cheque payable to Corporation. (e) Jan. 15. See page 28.

* * *

HARTLEPOOL B.C. (a) 3 blocks of 3-storey flats, comprising 2 blocks of 12 flats and 1 block of 18 at Coverdale Street Area. (b) Borough Engineer, Borough Buildings, Middlegate. (c) 5gns. (e) Jan. 6.

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HUDDERSFIELD B.C. (a) Residential nursery at Fieldhead, Lindley. (All trades.) (b) Borough Architect, High Street Buildings. (c) 2gns. (e) Dec. 28.

* * *

ISLE OF WIGHT C.C. (a) Home for the blind adjacent to "Polars," Staplers Road, Newport. (b) County Architect, County Hall, Newport. (c) 2gns. (e) Dec. 31,

* * *

LEEDS C.C. (a) (Contract No. 565) Conversion of No. 80 Francis Street into 2 self-contained flats and 1 maisonette. (Contract No. 566) Conversion of "Highfield," 13, Leopold Street, into 3 1-bedroom and 1 2-bedroom flats. (b) City Architect, Priestley House, Quarry Hill, 9. (c) £1 each contract. (e) Jan. 4.

* * *

LONDON—WALTHAMSTOW B.C. (a) Public convenience at Larkshall Road. (b) Borough Architect, Town Hall, E.17. (c) 2gns. (e) Dec. 31.

* * *

LONDON—WEST HAM B.C. (a) 36 houses, 24 maisonettes, 16 flats and 3 garages, Garvary Road, E.16. (b) Borough Architect, 70, West Ham Lane, E.15. (c) 2gns. (d) Dec. 19.

* * *

LOWESTOFT B.C. (a) 56 houses, Gunton Estate. (b) Borough Engineer, 49, High Street. (c) 2gns. (e) Jan. 6.

* * *

LUTON B.C. (a) 7 blocks of 8 flats, Farley Hill Estate. (b) Borough Engineer, Town Hall. (c) 2gns. (e) Jan. 1.

* * *

NEWCASTLE-UPON-TYNE C.C. (a) (1) Public convenience in Two Ball Lonnen; (2) Public convenience in Welbeck Road. (b) City Architect, 18, Cloth Market, 1. (e) Jan. 28.

* * *

NORTH KESTEVEN R.C. (a) 24 houses and 6 bungalows, Potterhanworth Estate. (b) J. Chadwick, 31, Clasketgate, Lincoln. (c) 5gns. (e) Jan. 7.

* * *

PEMBROKESHIRE C.C. (a) 4-bay fire station and brigade headquarters, etc., at Merlins Hill, Haverfordwest. (b) County Architect, County Offices, Haverfordwest. (c) 2gns. (e) Jan. 14.

* * *

PEMBROKESHIRE C.C. (a) Rural technical institute at Neyland. (b) County Architect, County Offices, Haverfordwest. (c) 2gns. (e) Jan. 18.

* * *

READING B.C. (a) 5 shops with 10 flats over in Southcote Farm Lane, Bath Road Estate, Reading. (b) Borough Architect, Town Hall. (c) 2gns. (e) Jan. 13.

* * *

SCOTLAND—BRECKNOCK R.C. (a) 16 houses with road and drainage works on Maesyfelin site, Llangorse. (b) Council's Architect, J. Merton Jones, St. Mary's Chambers, Abergavenny. (c) 3gns. (e) Jan. 1.

* * *

SCOTLAND—CROMBIE. (a) 50 houses at Crombie, Fife. (b) Scottish Special Housing Association, Ltd., 15-21, Palmerston Place, Edinburgh, 12.

* * *

SCOTLAND—FIFE C.C. (a) Conversion of classrooms into technical rooms and provision of additional sanitary accommodation at King's Road School, Rosyth. (b) Messrs. Wilkinson and Lowe, 2a, Chalmers Street, Dunfermline. (c) Dec. 24.

* * *

SCOTLAND—GLASGOW C.C. (a) Shops and flats at Mamore Place, Auldhouse. (b) City Architect, 20, Trongate, Glasgow, C.1. (e) Jan. 7.

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56

SCOTLAND—ST. ANDREWS B.C. (a) 58 houses, Auld Burn Park. (All trades.) (b) J. C. Cunningham, 10, Alexandra Place, St. Andrews.

* * *

SLOUGH B.C. (a) Public conveniences at car park, Wellington Street. (b) Borough Engineer, Town Hall. (c) 2gns. (e) Jan. 4.

* * *

SOUTHEND-ON-SEA B.C. (a) Construction of an enquiry bureau, etc. (b) Borough Architect, 30, Alexandra Street. (c) £2. (e) Jan. 4.

* * *

SWANSEA B.C. (a) Fire station, Grove Place. (b) Borough Architect, Guildhall. (c) £5. (d) Dec. 22.

* * *

WELTON R.C. (a) 4 houses at Saxilby. (b) Messrs. Wm. Saunders and Partners, 34, Castle Gate, Newark-on-Trent. (c) 3gns. (e) Dec. 30.

* * *

WING R.C. (a) 42 dwellings, Wingrave; 20 at Edlesborough; 6 at Cublington. (b) Council's Architect, 15, Bridge Street, Leighton Buzzard. (c) 2gns. (e) Jan. 4.

* * *

WIRKSWORTH U.C. (a) 8 bungalows for old people and 12 houses. (b) Council's Architect, 25, Chapel Street, Belper. (c) 2gns. (e) Jan. 2.

PLACED

Notes on contracts placed state locality and authority in bold type with (1) type of work, (2) site, (3) name of contractor and address, (4) amount of tender or estimate. † denotes that work may not start pending final acceptance, or obtaining of licence, or modification of tenders, etc.

DARTFORD B.C. (1) 89 dwellings, etc. (2) Site No. 6. (3) Hawker-Smith, Ltd., 1, West Street, Erith, Kent. (4) £110,503.

* * *

BIRKENHEAD B.C. (1) 203 dwellings. (2) Woodchurch Estate. (3) Lloyd and Cross, Ltd., Argyle Street, Birkenhead. (4) £258,000. (1) Roads and sewerage. (3) St. Alfred McAlpine and Sons, Ltd., Hootton, Cheshire. (4) £165,601.

* * *

COVENTRY CORPORATION. (1) Dwellings. (2) Stoke Aldermoor, etc. (3) Geo. Wimpey and Co., Ltd., Hammersmith, W.6. (4) Three contracts, £811,256, £112,196, £84,147. (1) Flats, etc. (2) Fletchampstead Highway. (3) W. H. Jones and Son, Ltd., Coventry. (4) £48,832.

* * *

COAL INDUSTRY HOUSING ASSOCIATION. (1) 352 houses. (2) Rossington, Doncaster. (3) John Laing and Son, Ltd., Carlisle and London. (1) 354 houses. (2) Conisborough, Doncaster. (3) John Laing and Son, Ltd.

* * *

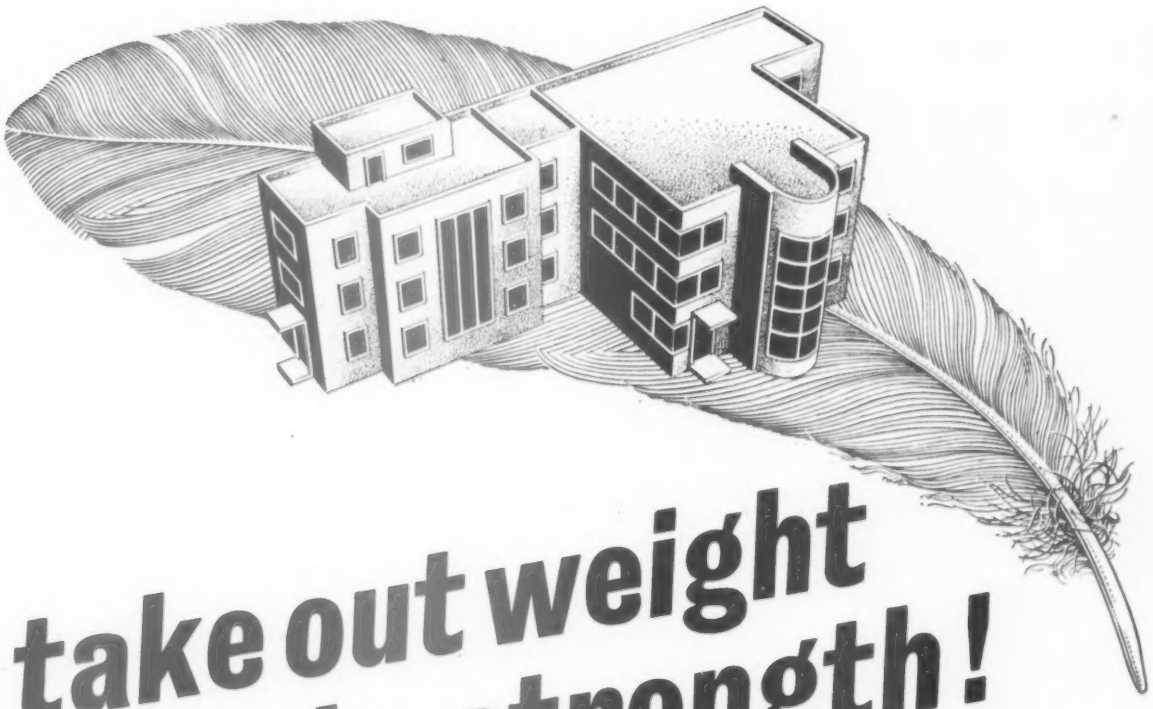
MANCHESTER CORPORATION. (1) 334 dwellings and 68 dwellings. (2) Woodhouse Park and Hulme. (3) Direct labour. (1) 32 houses, 30 flats. (2) Woodland Park. (3) C. and J. Seddon, Ltd.

* * *

SHEFFIELD CORPORATION. (1) 123 dwellings. (2) Grenhill-Bradway estate. (3) M. J. Gleeson, Ltd., 822, Chesterfield Road, Sheffield. (4) £147,911. (1) 147 dwellings. (3) J. W. Sivil, Ltd., 39, Canterbury Avenue, Sheffield, 10. (4) £154,449.

* * *

HAYES, MIDDLESEX. (1) R.C. secondary school, for R.C. Diocesan Schools Association. (2) Springfield Road. (3) Pitchers, Ltd., 57, Ashburton Road, London, N.7. (4) £100,000.



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Ventilators and window frames
Gutters and drain-pipes
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Partitions and panelling
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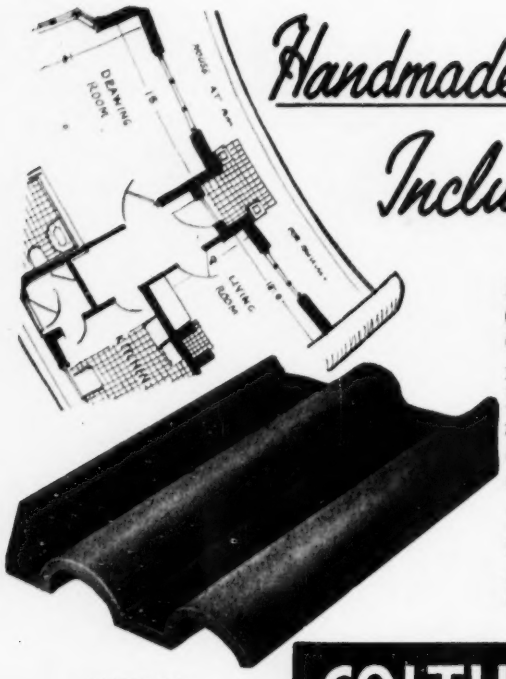

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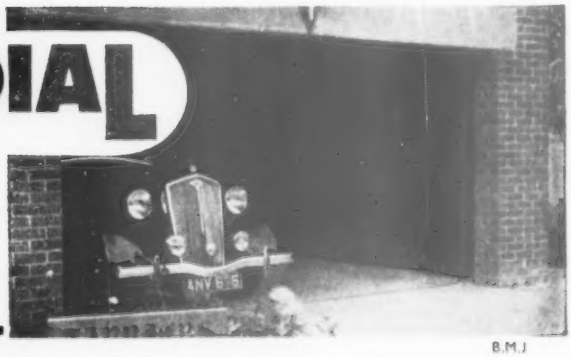
ELLARD RADIAL



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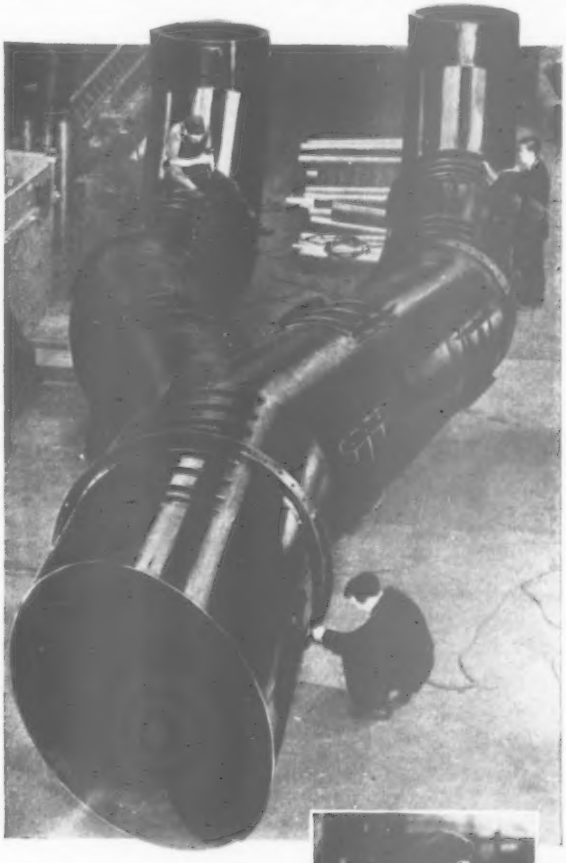

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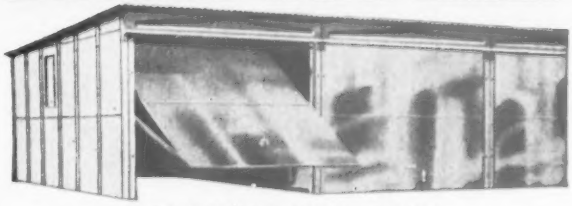

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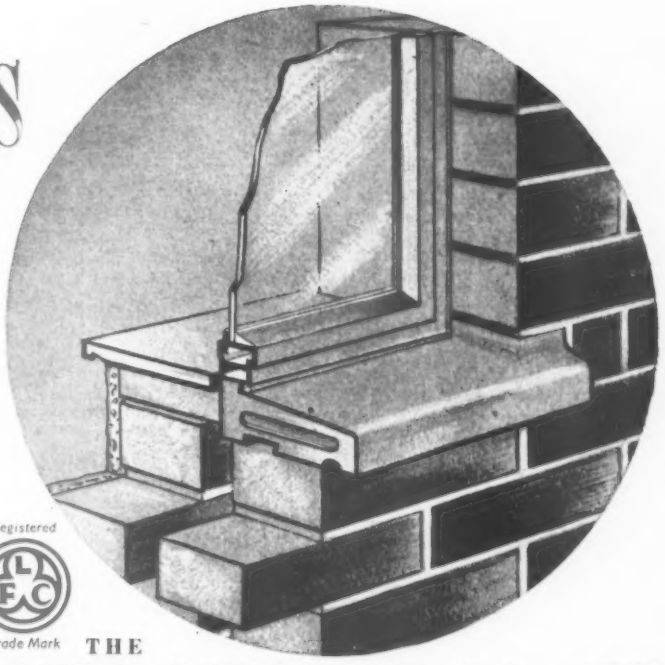

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PRESS NOTICE
For the issue of "The Architect and Building News" dated 31 December, classified advertisements must reach us by 1ST POST, THURSDAY, 24 DECEMBER.

APPOINTMENTS

The engagement of persons answering these advertisements must be made through the local office of the Ministry of Labour and National Service, etc., if the applicant is a man aged 18-64 or a woman aged 18-59 inclusive, unless he or she or the employer is excepted from the provisions of The Notification of Vacancies Order 1952.

BOROUGH OF OLDBURY.

BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.

AMENDED ADVERTISEMENT.

APPLICATIONS are invited for the following appointments in the Architects Section of the Borough Surveyor's Department:—

(a) SENIOR QUANTITY SURVEYOR, Grade A.P.T. VII (£710/25/785);

(b) ASSISTANT QUANTITY SURVEYOR, Grade A.P.T.V. (£595/15/15/20/645).

Salary will be paid within the above grades in accordance with the experience and qualifications of the successful candidates.

The Corporation's building programme comprises mixed development of houses, maisonettes and flats, shopping centres, the development of a central clearance area and general building works.

Candidates for appointment (a) should be qualified quantity surveyors with a thorough knowledge of local government building contract procedure, the preparation of bills of quantities and settlement of accounts.

For appointment (b) applicants should preferably be qualified quantity surveyors with practical experience in the preparation of bills of quantities.

The appointment will be superannuable, subject to the National Conditions of Service and to the selected candidate passing a medical examination.

Applications, giving particulars of age, qualifications and experience, with the names of two referees should be delivered to the undersigned, not later than Thursday, 31st December, 1953.

Housing accommodation will be available to married applicants if this is required.

KENNETH PEARCE,
Town Clerk.

Municipal Buildings,
OLDBURY.
30th November, 1953. [7493

COUNTY BOROUGH OF BARNSLEY EDUCATION COMMITTEE.

RESIDENT ENGINEER.

APPLICATIONS are invited for the temporary post of RESIDENT ENGINEER to supervise the erection of the first instalment of the extensions to the Barnsley Mining and Technical College and also the erection of a Secondary Modern School. Salary will be at the rate of £900 per annum. The post is not pensionable.

The extensions to the Technical College will be of considerable size and will be carried out in four phases, so that there is likely to be continuity of work for some years.

The secondary modern school will accommodate 600 children.

Candidates should have a thorough knowledge of building construction and have had a wide experience in the building trade of large architectural projects, including reinforced concrete work.

Applications, stating age, present and past appointments and full particulars of qualifications and experience, accompanied by names and addresses of two persons to whom reference may be made, should be sent to the undersigned not later than 21st December, 1953

H. A. REDBURN,
Director of Education.

Education Department,
Town Hall,
BARNSLEY.
December, 1953. [7513

APPOINTMENTS—contd.

ISLE OF ELY COUNTY COUNCIL.

APPLICATIONS are invited for the undermentioned appointments on the staff of the County Architect:—

(a) ASSISTANT ARCHITECT (Grade A.P.T.Va) (£625-£685 p.a.).

(b) JUNIOR ARCHITECTURAL ASSISTANT (Grade Misc.I/II/III) (£300-£440 p.a.).

(c) QUANTITY SURVEYOR'S CLERK (Grade Misc.III) (£375-£440 p.a.).

The appointments are on the permanent staff, are subject to the provisions of the National Scheme of Conditions of Service, the Local Government Superannuation Act and to the passing of a medical examination.

Applications must be made on forms to be obtained from the County Architect, County Hall, March, accompanied by copies of not less than two recent testimonials, and returned not later than the 31st December, 1953.

R. F. G. THURLOW,
Clerk of the County Council.
[7511

CONTRACTS

BOROUGH OF GILLINGHAM

BOROUGH ENGINEER'S DEPARTMENT

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TENDERS are invited for the ERECTION OF 124 BRICK-BUILT TRADITIONAL-TYPE DWELLINGS of simplified design in pairs and terraces on the Twydall/Beechings Estate, Gillingham.

Persons desirous of tendering may obtain copies of the Bills of Quantities, Specification and Form of Tender and may inspect the drawings and Conditions of Contract at the Borough Engineer's Department during usual office hours on and after the 21st December, 1953.

Applications should be accompanied by a cheque for five guineas (£5 5s) made payable to the Gillingham Corporation. This sum will be refunded on the receipt of a bona fide tender not subsequently withdrawn and on the return of all the documents issued.

The above-mentioned documents will be available on the 21st December, 1953.

Tenders, in plain sealed envelopes endorsed "Tender for 124 Dwellings Twydall/ Beechings Estate," must be delivered to the undersigned by not later than the first post on the 15th January, 1954.

The Council do not bind themselves to accept the lowest or any tender.

FRANK HILL,
Town Clerk.

Municipal Buildings,
Gillingham, Kent.
3rd December, 1953. [7503

EDUCATIONAL

I.A.A.S.
FORTHCOMING EXAMINATIONS.

THE Incorporated Association of Architects and Surveyors will hold the following examinations during the week beginning 3rd May, 1954.

ARCHITECTS SECTION: Intermediate grade. Final grade (Parts I and II).

QUANTITY SURVEYORS SECTION: Intermediate grade. Final grade (Parts I and II). Direct Final grade.

BUILDING SURVEYORS SECTION: (Municipal & Non-Municipal) Intermediate grade. Final grade (Parts I and II). Direct Final grade.

LAND SURVEYORS SECTION: Intermediate grade. Final grade. Direct Final grade.

FIRE SURVEYORS SECTION: Direct Associate grade (Parts I and II).

The examinations will be held in London, and at selected provincial centres. Applications from candidates for permission to sit, made on the prescribed form, must be received not later than Monday, 8th February, 1954.

Full information to the General Secretary, I.A.A.S., 75, Eaton Place, London, S.W.1. [7510

MISCELLANEOUS SECTION

RATE: 1/6d. per line, minimum 3/-, average line 6 words. Each paragraph charged separately.
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ARCHITECT assistants required by leading practitioner in Belfast; good salaries and prospects to suitably qualified men; post-graduate and senior grades.—Reply to Box 2344. [7514

ARCHITECTURAL draughtsman required, capable of carrying out working drawings and specifications; applicants should apply in writing, giving details of experience, age, etc., to Personnel Department, Albert E. Reed & Co., Ltd., Aylesford Paper Mills, Larkfield, Nr. Maidstone, Kent. [7498

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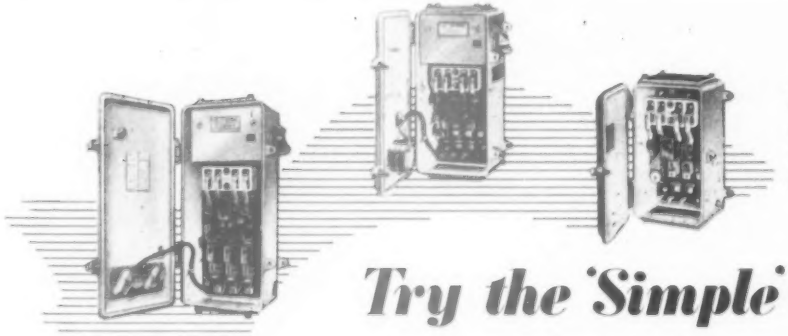

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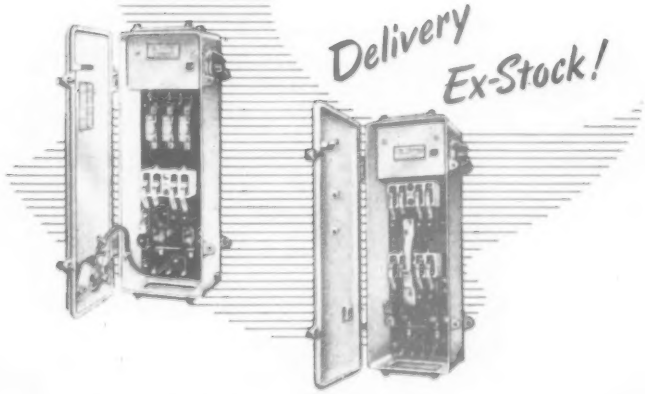

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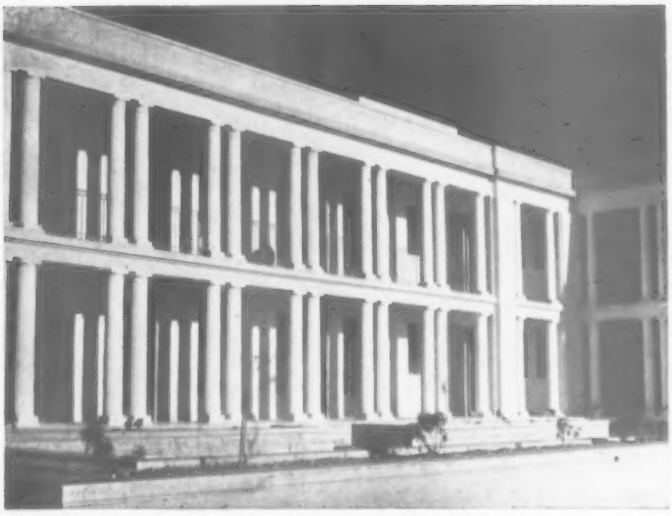

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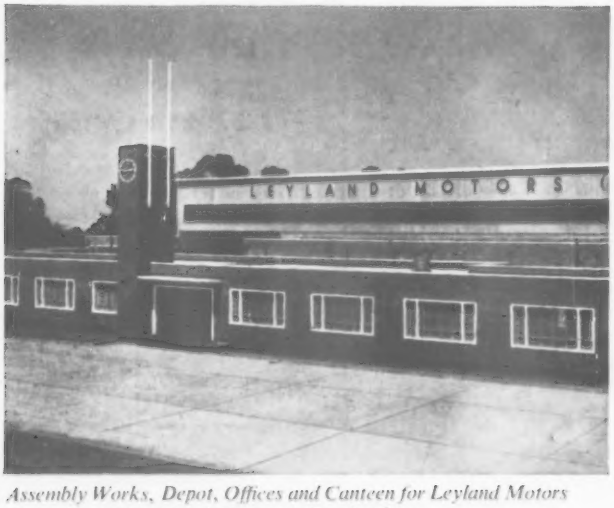

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